Vol 8 The War Illustrated N° 193

SIXPENCE Edited by Sir John Hammerton NOVEMBER 10, 1944

DOVER'S SYMBOL OF THANKSGIVING—the Town Flag—was hoisted for the first time since the early days of the war by the Mayor, Alderman J. R. Cairns, J.P., on September 30, 1944. He led the rejoicings of Britain's "front-line town," crowds dancing and singing in the flag-hung streets after loudspeakers had announced that after four years' ordeal of cross-Channel shelling all enemy long-range guns mounted in French ports opposite had been silenced or captured. *Photo, Planet News*

Our Roving Camera Tours the European Scene

POLAND'S TRAGIC HOMELESS included citizens of shell-racked Warsaw, who dragged themselves to safety in a refugee-camp after an abortive 63-days revolt which ended on October 3, 1944.

FINLAND'S PEACE DELEGATES journeying to Moscow were interrogated by Russian frontier guards. "Cease Fire" was ordered in the Russo-Finnish struggle on Sept. 4, 1944, after nearly 3½ years of bitter warfare.

RUSSIA WELCOMED MR. CHURCHILL who, accompanied by Mr. Eden and Field-Marshal Sir Alan Brooke (Chief of the Imperial General Staff) arrived at Moscow on October 9, 1944, for ten-day talks at the Kremlin. They were met by M. Maisky, Assistant Foreign Commissar (centre, in uniform) and M. Molotov (extreme right).

FRANCE ENJOYED A PROUD MOMENT when at the Invalides General Koenig, Military Governor of Paris, restored to an officer of the Garde Republicaine the regimental flag which had been hidden during the Nazi occupation.

GERMANY HAD A TASTE of her own medicine when refugees fled from their war-torn home-city of Aachen (right), captured by U.S. forces on October 20, 1944, after 12 days of street-fighting, bombing and shelling. See also pages 308 and 395.

Photos, U.S. and U.S.S.R. Official, Keystone, Pictorial Press

THE BATTLE FRONTS

by Maj.-Gen. Sir Charles Gwynn, K.C.B., D.S.O.

INFORMATION that has now been released concerning all the measures that the Navy had to take to ensure the build-up of the Armies and their supplies in Normandy should finally convince everyone that there was no avoidable delay in launching major offensive operations. It should also go far to explain the nature of the operations on the whole Allied front since determined enemy resistance was encountered. The ports available, whether improvised or under restoration, have still only a limited capacity which may further be greatly reduced by bad weather. Lines of communication have been immensely lengthened and the number of troops engaged greatly increased, not only in the fighting line but on rearward service of all kinds.

French railways at best are working far below their normal capacity, so that practically all movement of stores, not only those required for day-to-day expenditure, but also those needed to build up adequate reserves in forward areas before embarking on continuous offensive operations, must be moved by road. In Normandy the fighting line and all depots were within short distances of ports of disembarkation, and probably the main difficulty there was to avoid congestion of roads; but now length of haulage has become the main factor in causing delay. It is not therefore surprising that the chief immediate object is to open access to the great Port of Antwerp which so astonishingly fell into our hands intact.

THE partial lull which has occurred has, of course, given the Germans opportunity to reorganize and restore morale after their shattering defeat, but the respite they have gained has been far from complete. Witness the number of costly, and generally ineffective, counter-attacks they have been compelled to deliver to maintain their defensive positions, and the sacrifice of suicide detachments they have had to make in order to deny us the use of some ports for a time. When General Eisenhower decides that he is ready to renew the offensive on a maximum scale we can, I think, count with some confidence that he will find that the newly-formed crust of German resistance will in places have been worn thin, even if we leave out of account the effects of the intensified air offensive which has been in progress.

How soon General Eisenhower will be ready to strike we have no means of judging, but if he considers the opening of Antwerp an essential factor we must reconcile ourselves to further delays, for it is certain that the Germans will fight to the last to deny us the use of this port.

RUSSIA During the lull on the western front the Russians have made great progress in preparing the way for the great offensive which at the time of writing seems actually to have started. With the loyal co-operation of the Finns they have left Rendulic's depleted army no alternative but a long and difficult retreat to Norway. The capture of Petsamo, moreover, has deprived the Germans of their main source of nickel supplies, while with the closing of the Gulf of Bothnia they will obtain little iron ore from Sweden.

The German armies in the Baltic States, after costly attempts to break south to East Prussia through Bagramyan's encircling force, and failure to carry out an evacuation through Riga, have been driven into the western corner of Latvia, where they are no longer a menace to Cherniakovsky's army attacking East Prussia. Some part may escape through the ports of Libau and Windau, but they will have to run the gauntlet of Red Air Force attacks, and it is unlikely that they will contribute a substantial reinforcement to German reserves.

South of the Carpathians the German situation is even worse. Malinovsky's offensive through Rumania has penetrated far into the Hungarian plain and is approaching Budapest. His right wing threatens the retreat of substantial German and Hungarian forces belatedly withdrawing from northern Transylvania. General Petrov's Army, advancing through the northern Carpathian passes on a wide front is almost in contact with Malinovsky's right, and a new German disaster seems to be in the making. Horthy's attempt to surrender has apparently been frustrated, but its effects on the Hungarian Army will not so easily be eliminated. Even if they continue to fight, troops that have once been ordered to lay down their arms can no longer be reliable, and Petrov's rapid advance across the Carpathians has almost certainly been assisted by Hungarian defections.

BALKANS Malinovsky's left wing co-operating with Marshal Tito's forces and receiving some assistance from Bulgarian troops has also had remarkable successes which place the Germans, now in full retreat from Greece and southern Yugoslavia, in a desperate situation. The capture of Nish closed their main line of retreat, and the alternative route through Skoplje is long and difficult, passing through country swarming with Tito's partisans. To make matters worse the Germans in northern Yugoslavia, who might have kept retreat routes open, have been roughly handled. Several considerable groups have been surrounded and annihilated, and those that attempted to hold Belgrade, after a suicidal struggle, shared the same fate. Here again the chances that German reserves will be reinforced by the armies retreating from the Balkans are almost negligible, and Kesselring's chances of withdrawing successfully from Italy at his chosen moment are also steadily diminishing.

The whole German south-eastern front covering Austria and southern Germany is therefore desperately exposed, and should there be any considerable defection of Hungarian troops Malinovsky may achieve decisive results, provided always that his communications are good enough to maintain the momentum of his advance. If Rumanian railways are in reasonable working order and an adequate supply of rolling stock is available they may greatly ease supply problems, for there will be no break of gauge to complicate matters. It is obvious that the Germans, with the main Russian offensive in East Prussia and Poland in progress cannot afford to transfer troops from the north in any number to buttress their southern front; even less can they afford to denude their western front, already dangerously weak.

THRUST TOWARDS THE MAAS at Venlo (indicated by arrow) by troops of the British 2nd Army developed on the fall of Venray and Overbroek on Oct. 18, 1944. Map shows the Allied line on Oct. 20.
By courtesy of News Chronicle

H.M. THE KING returned to London on Oct. 16, 1944, after a five-day tour in Holland and Belgium. He is here seen in a caravan close to the enemy lines, discussing the campaign with Field-Marshal Montgomery.
Photo, Newspaper Pool

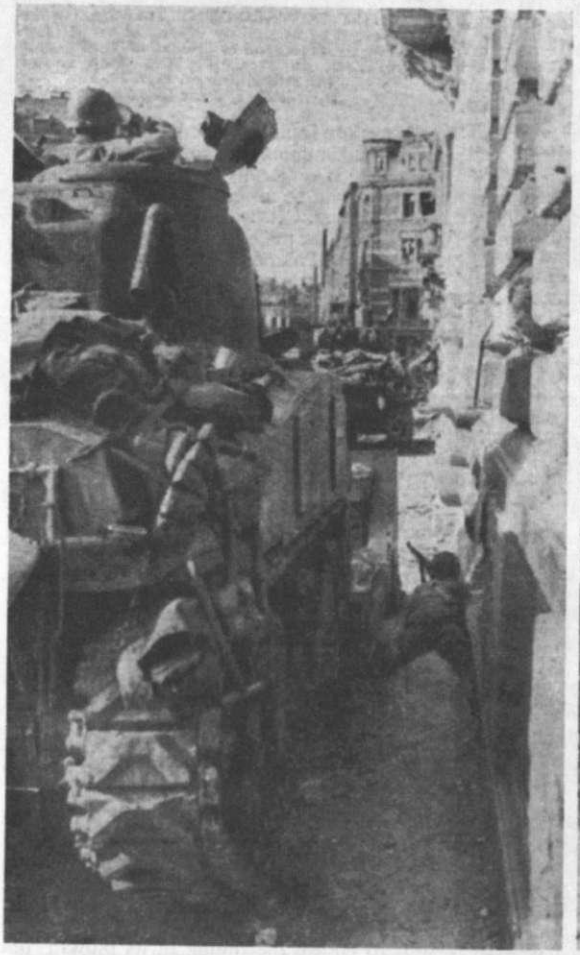
TIMING of the Russian successive offensives has again been admirable, and there has again been a notable display of patience in Russian strategy, especially so in their northern Carpathian operations. It may be remembered that when Zhukov's offensive in the early spring this year almost reached the crest of the passes there was something approaching general expectation that an invasion of the Hungarian plain was imminent. At the time I can remember expressing the opposite view, that Zhukov for the time being would do no more than establish a footing in the passes and use the mountains as a defensive flank for his westward operations; for it seemed clear that to enter Hungary without a co-operative attack in the south would be to invite a crushing counter-attack on emergence into the plain.

Malinovsky's offensive has supplied the co-operative factor, providing the opportunity for Petrov's advance at the time when it was likely to be most effective; but it meant months of patient waiting. An army that holds the initiative can afford to wait to ensure the timing of its blows; but for an army that is on the defensive, as the Reichswehr is, waiting leads often, as we have seen, to belated decisions.

British and U.S. Armies on Germany's Border—

BRITISH 2nd ARMY troops in the Venray and Overloon fighting included the 3rd Division—comprising Scotsmen and men from the Midlands, East Anglia, Yorkshire, Lancashire and Shropshire. Overloon, south of Nijmegen, fell on October 12, 1944; Churchills pass the shattered church (left). Occupation of Venray, Dutch road and rail centre, was completed six days later, after house-to-house fighting (right), this successful action reducing the enemy salient west of the River Maas. See map in page 387.

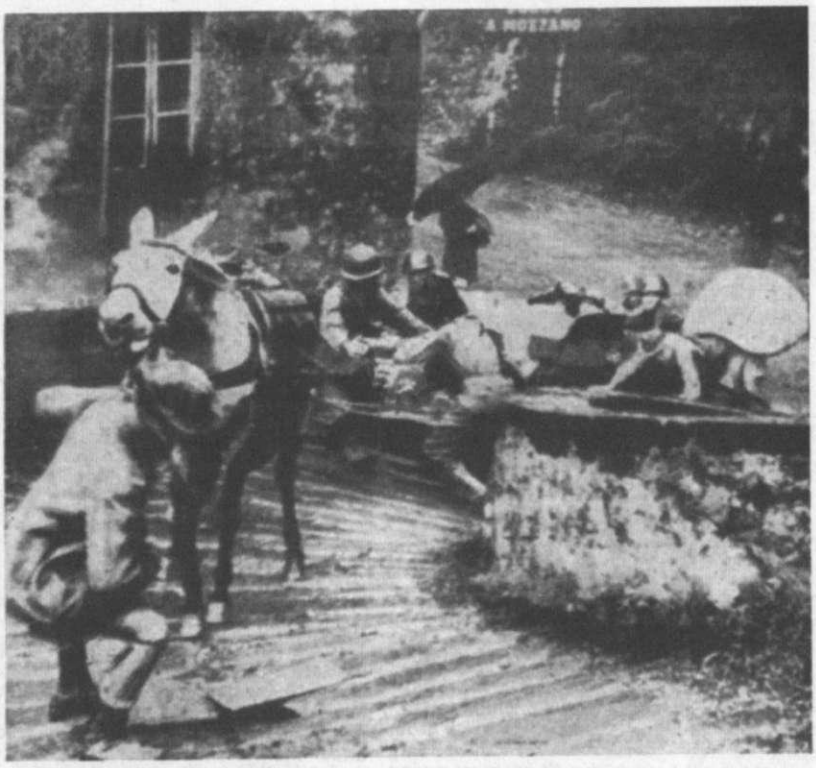
Photos, British Official



U.S. 1st ARMY AT AACHEN battled in the suburbs towards the centre of the smashed city against fanatical resistance until its capture on October 20, 1944, when it was stated that over 10,000 prisoners had been taken. More than 15,000 civilians also fell into American hands. An American sniper used a tank as protection against enemy fire (left). A 57-mm. anti-tank gun in action during the prolonged street-fighting (right). Thanks to the U.S. gunners' accuracy little damage was done to the city's famous cathedral. See also pages 386 and 395.

Photos, Keystone

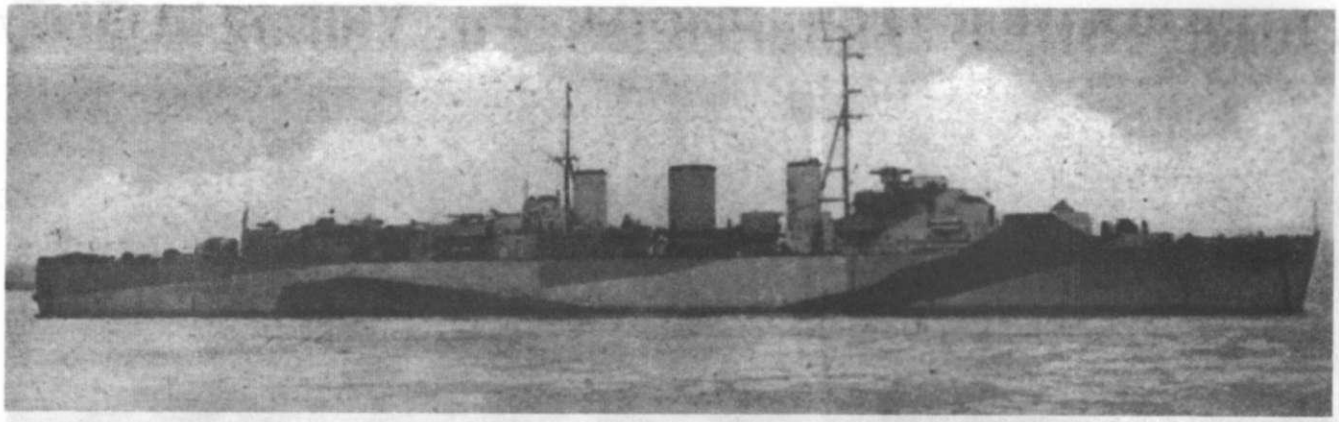
—And Driving Towards the Po Valley in Italy



5th ARMY FORCES were reported to be on the main Florence-Bologna road within eight miles of Bologna itself on October 26, 1944, and engaged in heavy fighting. Inside the much-vaunted Gothic Line the Germans had constructed strong underground defences on the hillsides, from which they were forced to withdraw. An abandoned Spandau machine-gun nest (left) covered Route 65 to Longhidoro. Brazilian soldiers, going into action for the first time, hauled a captured German anti-tank gun across the River Serchio, assisted by a mule (right).

8th ARMY HAD CROSSED the River Pisciatello and taken Cesena by October 20, 1944, despite heavy rains, swollen rivers and waterlogged roads. A week later they were reported well beyond the River Savio on each side of the Via Emilia, five miles east of Forli. A bogged-down 25-pounder had to be extricated from a flooded emplacement (left) north-east of Scorticana, just across the famous River Rubicon, which at this point (right) is spanned by two newly-erected Bailey bridges (see page 169); in the foreground a bulldozer is in difficulties. The crossing of the Rubicon by Julius Caesar in B.C. 49 began the Roman Civil War.

Photos, British Official



H.M.S. APOLLO, A NEW FAST MINELAYER, of which this is the first picture to be released. In appearance she bears a distinct resemblance to H.M.S. Manxman, survivor of a class of four such ships laid down in 1939. She is a vessel of 2,650 tons with the exceptional speed of 40 knots. Apart from her cargo of mines, she carries an armament of six 4·7-in. guns and sundry smaller weapons. It will be recalled that ships of the Manxman type played an important part in keeping Malta supplied in 1941-42. *Photo, British Official*

THE WAR AT SEA

by **Francis E. McMurtrie**

IN the Far East the pace of the war is increasing. The First Lord of the Admiralty has stated that "a fleet capable in itself of fighting a general action with the Japanese Navy" is being transferred to the Pacific. It will include an immense train of auxiliaries of every kind, from escort aircraft carriers down to landing craft, the need for which will be great owing to the immense distance from Allied bases at which actions are likely to be fought.

With the American landing in the island of Leyte, October 20, 1944, the campaign for the reconquest of the Philippines has opened.

In attempting to expel the attackers by a naval offensive, the Japanese have made their situation infinitely worse. While their fleet still existed as an intact unit it was bound to exercise a certain constraint on Allied movements at sea; but now it has suffered a severe defeat in the Philippines battle, with the loss of certain of its more important units and the crippling of many others, there is little to prevent the Allied Navies from ranging far and wide, interrupting the vital communications on which depend not only the maintenance of Japanese armies abroad but the sustenance of the population at home.

A fatal mistake was made when the authorities in Tokyo assumed the truth of the claims made by their aircraft to have sunk or damaged a dozen Allied aircraft carriers and various other ships. Relying on this information, they took the risk of sending all their available fighting ships into the waters of the Philippines. No better opportunity could have been wished for by the Allied naval commanders. At the cost of one aircraft carrier of moderate size, the U.S.S. Princeton, two escort carriers, two destroyers and a destroyer escort, losses of a much more serious character were inflicted on the enemy. At the time of writing, these are understood to comprise four aircraft carriers, two battleships, six heavy and three light cruisers and six destroyers. Nearly all the more important Japanese ships were badly mauled, and their repair will take time in the present congested state of enemy shipyards.

H.M.A.S. AUSTRALIA, wearing the pennant of Commodore J. A. Collins, R.A.N., in command of the Australian squadron operating with the U.S. Pacific Fleet, received a bomb hit on or near the bridge, killing 19 officers and men and wounding 54, including the Commodore himself. Otherwise, no extensive damage is reported by Admiral Halsey, who commands the Allied naval forces in the Philippines and is entitled to the chief credit for this important victory.

In the early days of the war it was possible to ascribe the erratic strategy of the Japanese Navy to the fact that it was dominated by the Army under General Tojo. Now that Admiral Yonai has been given a freer hand under the present regime, it might have been expected that such a miscalculation as that which precipitated the Battle of the Philippines would have been avoided. It would seem, indeed, that as the war progresses our Eastern foes are showing increasing signs of being "rattled."

SUPERIOR Strategy Caught the Japanese Napping

It is probable that the enemy were by no means certain where the blow was going to fall, and were thus taken entirely by surprise at Leyte. It is said that preparations had been made to resist an invasion of Mindanao, the great island immediately to the south. Possibly also an attack on Formosa or the Ryukyus was feared. In Far Eastern countries enormous importance is always attached to "saving face," or in other words, avoiding the loss of prestige. To the people of Japan, the loss of the Philippines would not mean much in this way; and to lose Formosa even would be regarded as a minor blow. Thus it seems likely that what is left of the Japanese fleet will now be husbanded as much as possible, so that it may ultimately fight under the most advantageous conditions, close to its home shores when those are threatened.

There is still a very limited amount of information about the Japanese Navy and its present strength. After its latest losses it may include eight battleships, three of which are new units of 45,000 tons, armed with 16-in. guns. Aircraft carriers may number nine or ten, few of which are first-class vessels. Cruisers have been variously estimated, according to the assessment of losses, but a maximum figure would be about 30. Destroyers, in spite of heavy casualties, may be as many as 80, and submarines are quite as numerous.

The United States Navy should be able to dispose of twice as many ships in each of the foregoing categories without exhausting its reserves. This superiority continues steadily to increase, as American shipyards have an infinitely greater capacity than those of Japan, and also build more rapidly. This does not take into account the very substantial force comprised in the British Eastern Fleet.

THERE is no doubt the Japanese Navy has been heavily handicapped owing to its strategy having been controlled by military men. The Naval Staff in Tokyo would probably have accomplished much more with the material at its disposal had it not thus been fettered. Audacious as the initial attack on Pearl Harbour may have been, it was deprived of any lasting effect by the enemy's failure to follow it up at once with a large-scale invasion of the Hawaiian group. Ultimately this seems to have been grasped, for the Battle of Midway nipped in the bud an enterprise which appears to have had Hawaii as its objective. Incidentally, this action, owing to the heavy loss in aircraft carriers sustained by the enemy, proved the turning point of the whole war in the Pacific.

In the Solomons campaign the same halting strategy can be seen. Instead of overwhelming the Allies at the start by a concentration of the utmost force, the Japanese poured in reinforcements, with sea and air support, in small packets, which always just failed to turn the scale. In the end everything was lost as a result. Much the same process may be expected to follow elsewhere; Burma is an instance. There, sea communication between Rangoon and Singapore is practically non-existent as the outcome of British submarine operations.

British sea and air attacks on Sabang, Surabaya, the Andamans and the Nicobars, have given the enemy warning that his hold on Malaya and the Netherlands East Indies is growing more precarious. In the near future the Japanese garrison in Singapore may find itself in much the same unenviable position as the Russians in Port Arthur in 1904.

FOOD AND AMMUNITION FOR GREECE were aboard this British landing craft in the Mediterranean, and Lt. Greag (above), from Tasmania who repeatedly helped to transport badly-needed supplies was no stranger to the task. PAGE 390 *Photo, British Official*

British Commandos Turn Up in Stormy Albania

TAKING SORELY-NEEDED AID to Marshal Tito's Yugoslav partisans and Albanian patriots harassing the German withdrawal from the Balkans, Allied seaborne and airborne forces—mainly British—landed in Albania, it was announced on September 27, 1944. The landings were covered by powerful units of the Balkan Air Force, a composite group of the Mediterranean Allied Air Forces, the formation of which was disclosed on August 5, 1944. Here British Commandos are making their way along the shore after disembarkation.

Photo, British Official

Lifeline to Russia: Tasks Without Parallel

Aid from the Empire and America to Soviet forces has not only resulted in tremendous victories in the field. It has provided one of the greatest stories of supply achievement in the history of war, of feats of engineering, individual effort and courage and ingenuity, of triumph over climatic extremes and vast distances, as told by JOHN FLEETWOOD. See also facing page.

WHEN the last bomb falls on Europe and the last resisting Nazi bites the dust, it will be found that one of the sure foundations on which the United Nations built victory was provided by the legions who opened a back door into Russia and through it poured over 3,750,000 tons of vital war supplies.

As each great Russian drive bites deeper into the fortress of Hitler's tyranny, as each day brings some new story of brilliant Red Army leadership and courage, men far from the battle front yet fighting blinding sunshine, grilling heat, dust-storms, thirst, insect pests, boredom and exhaustion pause for a moment to ponder: "I, too, had a share in that."

These are men of the Persia and Iraq Command (Paiforce), Britons, Americans, Indians, Russians, Poles, men at office desks, in lorry cabins, in river craft, perched on telephone poles in blazing sun or huddled for warmth in dugouts high in mountain passes. And their task? Aid to Russia—three words that combine great victories in the field with one of the greatest supply achievements in the history of war.

It started when the Allies faced a grim prospect, when the United States were still neutral, in the summer of 1941. Russia had taken so many body-blows in the German advance on Moscow and the Caucasus that observers began to fear she was beaten. British troops had been driven back from Benghazi. Greece and Crete were lost. In Syria, Vichy was ready to co-operate with the Axis. Iraq's Raschid Ali, brave with Nazi gold and promises, had thrown off the mask; the Persian Shah's attitude was doubtful. To crown the despair of the civilized world, Japan became increasingly hostile.

TRUE to her treaty obligations and in protection of the guaranteed independence of Iraq, Britain rushed reinforcements into Iraq and quelled the Raschid rising, only to be faced with the threat of a German advance from the north. Thus was Paiforce born. Gradually the menace from the north receded, but the armies of the Soviet were in desperate need of tanks, mechanical transport, petrol, oil. And so, from Britain, by the Arctic route, ships of the Merchant Navy battled their way through the icy seas of U-boat alley to north Russian ports.

It was not enough, and soon hard-pressed British armies in North Africa were being denied their urgent needs. British and Indian troops were striking hard from the west and north-west, from the east and south-east, to open the warm-water and overland route to the Soviets, and to keep it open. Ports, railways and roads inadequate to deal with the situation were replanned and rebuilt to form a vast supply route between the Persian Gulf and the Russo-Persian frontier.

Since the British Army Arrived

Tanks, ammunition, trucks, food, steel and rubber from the British Empire and America began to pour into Persian Gulf ports. While these were being unloaded, engineers worked feverishly to enlarge and improve port, road and rail facilities. It is officially estimated that nearly 50 per cent of the total Aid to Russia provided by Britain, Canada and the U.S. has travelled via the Persia-Iraq Command route, playing a vital part in the sweeping Soviet successes.

In his better days the late Shah was an ambitious, energetic, if ruthless autocrat. He set his heart on a railway across Persia from Bandarshahpur to Bandarshah to link the Persian Gulf with the Caspian Sea—868 miles. British engineers surveyed the projected line through the towering mountains. By 1937 the system was working, but it handled no more than a daily average of 200 tons. Since the British Army arrived the capacity of the trans-Persia road-rail route has been geared to tackle up to 300,000 tons a month.

Consider a few more obstacles. The highest point on the line is 7,205 feet above sea level, the lowest is 85 feet below. Duty has to be done in the Euphrates Valley where summer shade temperatures often rise well above 100 degrees, and in scorched deserts of Persian uplands. There, in the heat of mid-day, when work is halted by the sun, long hours have been lived laboriously through, with worries about the delays of mail or desperate guessing as to when the war would end. Even when the mail comes through, when an order of the day records recognition of the value of their work, it is still the dogged courage of these men that saves them from degenerating into the most browned-off troops in the world.

Between the two climatic extremes this great track to Russia soars and falls on gradients which make fantastic demands on engines, brakes and couplings. During the first summer the sun heated the feed-water in the engine tenders until the injectors were unable to deal with it, immobilizing the trains till special hot-water injectors could be flown in from Britain and India. In the high mountains in winter the other extreme prevailed, and trains were ice-bound.

Since the forming of the American Persian Gulf Command, Aid to Russia has been a responsibility divided between Britain and the U.S., and now figures of astronomical proportions appear in the lists of war supplies sent to Soviet forces. Aviation fuel alone amounted to over 53 million gallons; M.T. petrol used in convoying this and other materials to Russia exceeded 80 million gallons. In the more desperate months the Russians made calls for double and then treble the totals originally promised.

Always there has been the menace of thieves and saboteurs—not of one nation but of many, out for immediate personal gain or in the pay of the Nazis. Here in these huge wastes, where all manner of men can wander at will, thieving is a fine art. The Germans pay well for sabotage; and black marketeering is a racket more despicable than anything we know at home. More than £400 has been paid for an urgently needed tire, £40 for a car battery.

TO list all the units and services which have thrown their weight into this task would be impossible; it has been so vast, this aid to Russia, so complex in its many ramifications. So many tiny wheels, interlocking, make the whole mighty machine. Royal Engineers planned and achieved, the Pioneer Corps with their Indian battalions and locally enrolled labour have toiled and sweated, as have the R.A.S.C. and the R.I.A.S.C.

Always the telephones and telegraphs have been kept open for this vital line of communication. Often linesmen of the Royal Signals have had to wear special padding to protect hands from scorching metal or from frost-bite. Famous infantry regiments have patrolled the vast highway, guarded the pipe-line that carries much of the oil. Army Post Offices have fought a long, hard battle to bring mails as often as possible to thousands of soldier nomads.

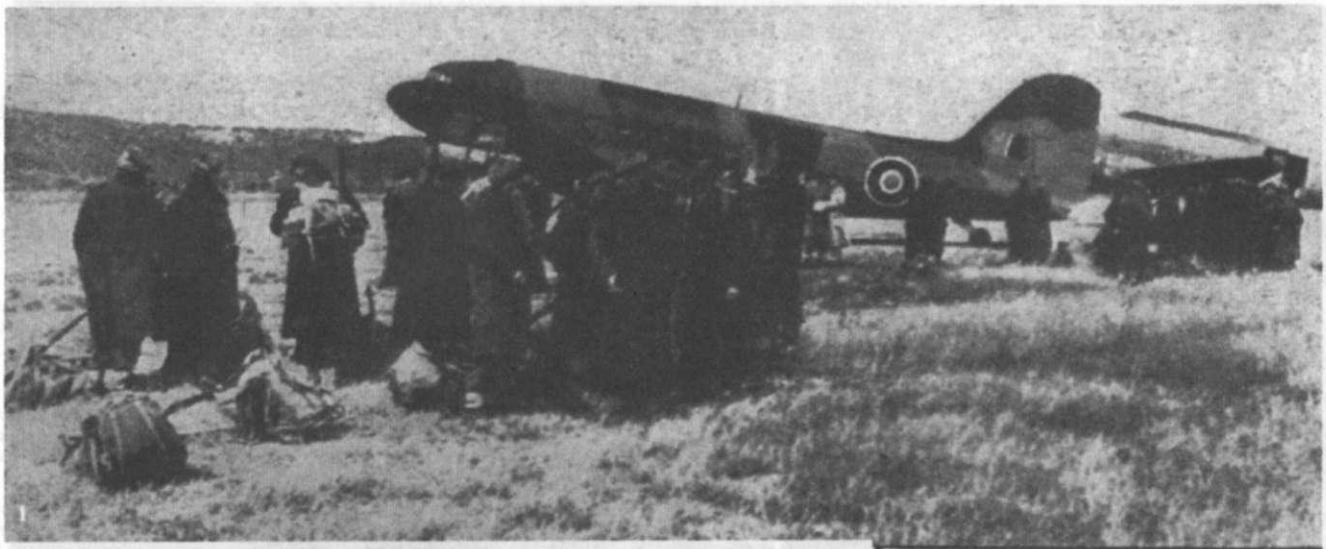
SUPPLY ROUTE ACROSS PERSIA, stretching from the ports on the Persian Gulf to the Russian frontier, saw an ever-increasing flow of British and American convoys laden with war materials for the U.S.S.R. during the critical years 1942-43. As explained in this page, the long line of communication was kept open often in the face of extremely hazardous conditions. Here an Allied convoy has left the snow-covered mountains in the distance, the laden lorries driving on across lonely countryside towards Russia. *Photo, New York Times Photos*

Through Persia to Marshal Stalin's Armoury

AVIATION AND OTHER SPIRIT reaches Russia from Abadan—" City of Oil "—an island in the Persian Gulf where much of the crude oil of Persia and Iraq is converted into its many by-products, including aviation spirit, at the rate of millions of gallons a day. The plant makes its own 4-gallon tins ; thus the petrol is delivered ready-canned (1). Persian mountain passes are patrolled by British military police (2). The forbidding Pa' Yi' Taq Pass in N. Persia, over which the bulk of the Allies' supplies are taken (3). See also facing page.

Photos, British Official

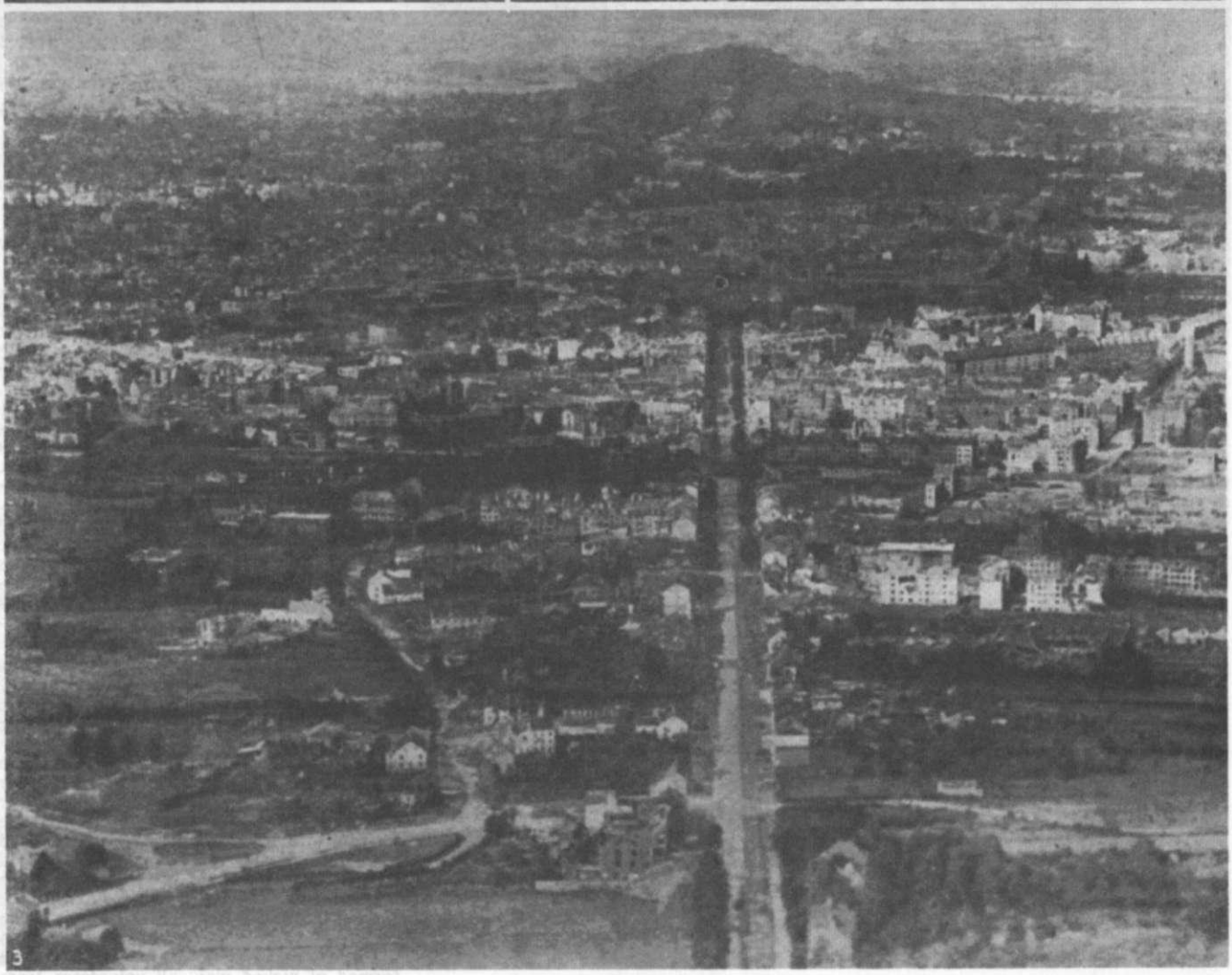
Joyfully the Greeks Greet British Freedom Army



LIBERATION OF GREECE, which culminated in the Allied occupation of Athens (see map above) on October 14, 1944, began when Land Forces Adriatic, under Gen. R. M. Scobie (see illus. p. 415), occupied Patras on October 4. Youngsters quickly made friends with our men (4). British forces landed from Dakota planes (1). Greek E.L.A.S. (Partisans) headed columns that entered Corinth (2) on Oct. 9. Greek collaborators were rounded up by men of the R.A.F. Regiment (3).

Photos, British Official. Map by courtesy of The Daily Telegraph

Germans Sealed the Utter Doom of Aachen City



REICH BORDER CITY 25 MILES S.W. OF COLOGNE, Aachen (Aix-la-Chapelle), scene of the crowning of medieval German monarchs, refused on October 10, 1944, an Allied ultimatum to surrender within 24 hours or be totally destroyed. Bombardment by 200 U.S. heavy guns followed concentrated air attacks, and by Oct. 20 the city was in Allied hands. The ultimatum was delivered by two lieutenants, with a private displaying a bedsheet on a pole (1). Debris in the suburb of Forst (2). Aachen from the air (3). (See also p. 388.)

Commandos With a Hose: Our Soldier-Firemen

Hitler's "scorched earth" policy provides tough work for British fire-fighters. From guarding highly inflammable stores at the docks to extinguishing a blaze in a French or Dutch or Belgian farmhouse their daily routine ranges. There is much of interest about the Army Fire Service and specialist columns of the N.F.S., told here by JOHN ALLEN GRAYDON.

MEN of the Army Fire Service, although little is ever said about their work, are playing an important part in the liberation of Europe. They were among the first troops to land on the Continent, and since D-Day have without respite been in action. The Germans have left in the wake of their retreating armies large numbers of arsonists with instructions to destroy by fire everything possible. The "scorched earth" policy has been perfected by the enemy over a period of nearly five years; but because of their splendid training and knowledge of modern methods, the Army Fire Service has already saved millions of pounds' worth of property in Europe.

During the early days of the invasion, while they were extinguishing the flames that gripped French hamlets, villages, and small towns, they were specially singled out by German snipers. On one occasion, when a party of firemen were guarding an important installation on the beaches, they were subjected to heavy shell-fire. Part of the area was set ablaze—but with sniper's bullets flying around them the firemen went to work and conquered the flames. Then a party of them went looking for the snipers!

The Army Fire Service is under the command of Lieutenant-Colonel S. N. Beattie, whose designation is Inspector of Fire Services. The personnel wear on their shoulder a round 2½-inch diameter badge, with a red background, a blue ring, and a yellow star, with the words: "Army Fire Service." The backbone of this Service are men who have been firemen in civilian life. Many former members of the old Auxiliary Fire Service have found their fire-fighting knowledge, secured perhaps during the 1940 blitz, of great use in Italy and France. Every big Army Depot has its own fire-fighting unit; the six largest have a station organized on the lines of the N.F.S.

ARMY Firemen are trained at a big centre in the North of England, and hundreds every month, under the instruction of experienced firemen, are passed out as qualified fire-fighters. Every man belonging to the Army Fire Service is a trained fighter; tough, quick, alert, and skilled in the use of small arms. Many times they have been thankful for this training. Near Rome a unit found themselves faced by several hundred Germans when they were fighting a fire in a small town; first they turned their hoses upon the enemy—and while the Germans were recovering from their surprise the firemen secured their rifles, took cover in the ruins of what had once been houses, and held off the Germans until a British armoured column arrived on the scene. Then they resumed their fight against the flames!

A GREAT spirit of co-operation sprang up over the war years between the National Fire Service and their counterparts in the British Army. Each calls upon the other where needed, and often the soldier-firemen are of infinite use when a fire breaks out nearer to their camp than the local fire brigade. River fire-fighting plays a big part in the preparation of the army fireman, and N.F.S. men of the River Thames Formation have often assisted in training soldiers for this very specialized form of fighting fires.

Highly trained, the Army Fire Service soldiers, before D-Day, were equipped to tackle burning docks, supply ships, transport vessels, and areas fired as the result of enemy action. Specially-constructed fire-tenders were built for carrying a water supply for immediate first-aid while the water barrage was being brought into action with heavy appliances.

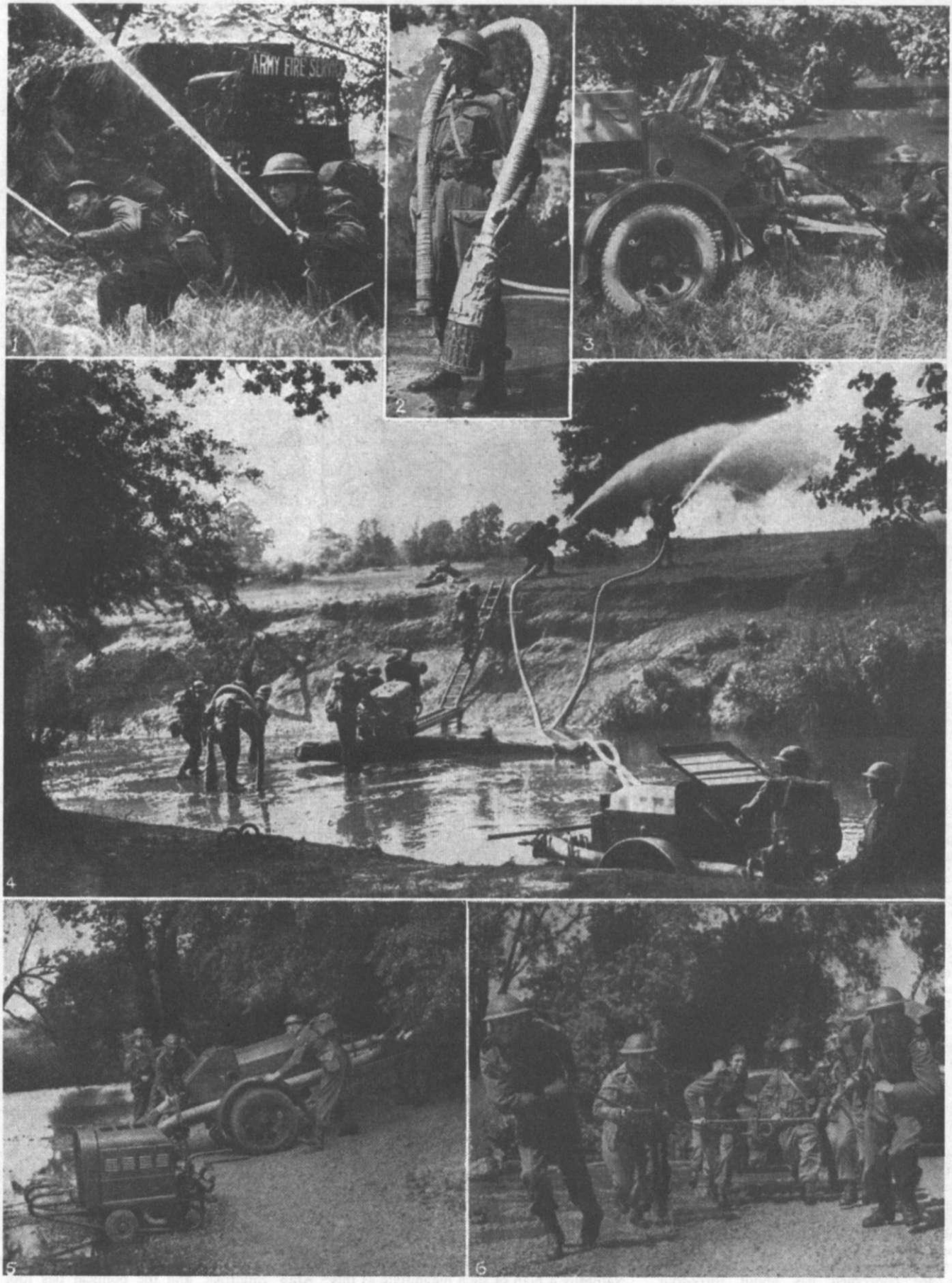
In France the Army Fire Service, with their heavy equipment, cumbersome, and demanding great strength to handle over a long period, have won the praise of more than one battalion, and the gratitude of French farmers and townsfolk because of their promptitude and knowledge of how to deal with a situation that might puzzle less experienced fire-fighters. A case in point was a small farmhouse that was fired by the enemy.

The soldier-firemen found the roof ablaze when they arrived on the scene, and within a matter of seconds they were at work. The enemy were lobbing mortar shells over at the time, but the firemen completed their task and the farmhouse was saved. In their spare moments the firemen, together with men from another unit, helped repair the damaged roof. Within a week the old farmer and his wife were again living in their little home—while the men who had made this possible were still fighting fires, but many miles away. Some time ago Hitler hinted that he would scorch all Europe before the end of the war. His Huns have many times tried to do this. But neither shells, bullets nor bombs will halt these "Commandos With a Hose."

THE Overseas Columns of the National Fire Service and the Fire Float Flotillas were ready in June 1944 to send contingents to the Continent, but owing to the eclipse of the Luftwaffe, it was announced by Mr. Herbert Morrison in October 1944 that only one column and one flotilla need be held for emergencies. The men, distinguished by their blue berets, have perfected themselves in the art of fighting fires in petrol stores, aboard ammunition ships, in military buildings, and storage dumps. In addition to their blue berets they wear khaki webbing, and have a special pack for carrying their kit. The columns had been made available equally to the British and American armies. They were formed of picked men, all volunteers, from all parts of England, Scotland and Wales; a company of skilled Canadian fire-fighters was also included.

FIGHTING A PETROL BLAZE behind the lines in France was only one of the tasks for which men of the Army Fire Service were specially trained. Wherever the Armies of Liberation go, the Army Fire Service are prepared to save not only Service stores and supplies, but civilian property threatened by flames. See also facing page. *Photo, British Newspaper Pool*

How the Army Fire Service Prepared for France



SOLDIER FIRE-FIGHTING UNITS accompanied the British 2nd Army to France. Specialists in fire prevention and extinction, they are also trained warriors (3). Foam equipment is carried on camouflaged tenders (1) for use against oil and petrol conflagrations. Suction hose for a light pump is brought up (2). A heavy pump is manhandled into position at a stream edge (5) ; it takes water from the stream to "play" on a fire on the opposite bank (4), while a light pump is taken across. At the double, equipment goes forward (6).

Photos, L.N.A.

Now the Arab States Move Towards Federation

The establishment of a league of independent Arab States was decided on at a preliminary conference held in Alexandria from September 25 to October 7, 1944. The implications of this move by countries whose geographical position makes them of world importance, and the historical background of Arab unity, are discussed here by SYED EDRIS ALI SHAH.

THE long-expected Arab Union is at last to become fact. On October 7, 1944, it was announced from Alexandria that the representatives of five Arab states —Egypt, Iraq, Syria, Lebanon and Transjordan—had signed a protocol to establish a league of the Arab nations. Two other delegates, those of Saudi Arabia and Yemen, not being empowered by their governments to commit themselves to anything, have submitted their reports to King Abdul Aziz Ibn Saud and the Imam of Yemen, who are expected to give their full approval.

The other Middle Eastern Arab state, Palestine, though unable to participate on equal terms in the conference—owing to its status as a British mandate—sent an observer in an unofficial capacity, who will keep the Palestinean Arab leaders posted as to the progress of the project. Article Five of the protocol mentions Palestine thus: "The conference holds that engagements made by Britain, which comprise the cessation of Jewish immigration, the safeguarding of lands belonging to the Arabs, and the advance of Palestine towards independence, constitute rights acquired by the Arabs, and that their execution will be a step forward towards the desired goal, and towards the return of peace and stability."

The clause of the agreement dealing with the Arab League speaks of a council, in which all the member states shall be on an equal footing; its mission would be to co-ordinate their political programmes, so as to safeguard their sovereignty against any aggression, and to concern itself with the general interests of the Arab countries.

This step towards greater unity and stability may be called a Middle Eastern League of Nations, very much on the lines of its Geneva predecessor, with the important difference that it concerns itself mainly with economic and political co-operation between several nations of one common language, area, and cultural and historical heritage. In this respect it is a more solid foundation for practical work than that of the two geographically nearest leagues that were established before the war: the Balkan Entente, inaugurated by Turkey, and the Saadabad Pact, between Iraq, Iran, Turkey and Afghanistan.

TO understand the implications of this move, by countries which lie athwart British communications with the East, and owing to the Suez Canal and the Iraqian and other oilfields are a vital factor in world affairs, we must get a good grasp of the meaning and extent of the Arab world. When the conquering Arabs swept out of their deserts they carried with them their language, culture and religion into many countries that were not of true Arab stock or feeling. Naturally, as these Middle Eastern countries came under the sway of the Arabs, a wholesale interchange of ideas took place; with the result that the so-called Arab civilization emerged. Under this, the arts and sciences, poetry, literature, architecture and many other phases of human endeavour became a kind of synthesis; dominating and guiding this were the Arabic language and the Islamic religion.

So this mass of widely differing peoples was welded into one cultural and linguistically homogeneous mass, with preponderant Moslem religious unity. Although the Moslem world contains a population of over four hundred millions, the Arab unit with which we are concerned has about forty-four millions. These Arab lands can be divided geographically into three groups: North Africa without Egypt, having a population of about sixteen million; Egypt, with another sixteen million; and Arabia proper. This third division, comprising Saudi Arabia, Yemen, Oman, Aden and Transjordan, with the "fertile crescent" countries Iraq, Syria and Lebanon, conforms roughly to the shape of the federation, with the addition of Egypt. Aden and Oman, like Palestine, being British controlled, naturally have to be left out of the calculations.

THE project aims at making these countries into one unit. Main problems that have worried the Arabs so far have been those of differences in currency and economic disparities. Unification of the monetary systems

ARAB STATES, delegates from which signed a protocol at Alexandria for the formation of an Arab League, are shown in black in this map. Saudi Arabia and Yemen were also represented at the conference; Palestine, being under British mandate, was not.

would be a comparatively simple matter under a single government; while the same applies in a far greater degree to questions of trade and industry. It should be remembered that the present divisions of the several States are of comparatively recent origin, following the break-up of the Turkish Empire, and bear no relation to the true economic and strategical demands of their positions. With the rapidly expanding industries that have grown up in the various States owing to the war, and the even greater expansion of industry and commerce that must follow it, lack of planning and the ability to co-operate in these matters might well result in economic disaster in the Middle East, with the inevitable recurrence of disorder.

Naturally a plan of such magnitude as this is no innovation; resistance to alien domination and the desire for unity have been perhaps the most clearly marked feelings of the Arabs for centuries. But of this long movement, the fruits of which have ripened at this significant phase of the war, it is the more recent history that concerns us now for a fuller understanding of the situation.

After the last war, the secret plans and activities of the various Arab Unity organizations were more free to come into the open. In August 1923, a Congress of the Arabian Peninsula was held on the occasion of the Mecca pilgrimage. Mecca became the headquarters of the movement, and the King of the Hejaz was playing the leading part. A delegation consisting of members from Syria and Palestine met King Hussein in January 1924, and made a declaration of their support of unity under the kings of the peninsula. The work went on until Hussein's kingdom fell, and King Ibn Saud took over the reins.

In the nineteen-thirties Arab feelings were very much stirred by events in Palestine. Significantly, after the 1929 disturbances, the Baghdad Arab Congress executive voted in Jerusalem a programme embodying the two points that all efforts should be made to gain sovereignty for the Arab states, and that the Arab nation constituted one indivisible unity: any division that might have occurred was not recognized by the nation. An Arab Congress took place in Jerusalem in 1936; then followed a treaty between Saudi Arabia and Iraq, while Egypt gained her independence in the same year. The conferences have continued to the present day, receiving impetus from the attainment of independence during this war of Syria and Lebanon.

WHO are the personalities behind all this and to what extent has the idea entered the soul of the Arab peoples? These are the questions that spring at once to mind. In the present political field there are a large number of new faces, together with an impressive array of the "old guard" of Arab national aspirations. Among the old champions of the cause are King Farouk, King Ibn Saud, and the Emir Abdullah of Transjordan. Other outstanding personalities are the Emir Shakib Arslan, General Nuries-Syed, the Prime Minister of Iraq, and H.R.H. the Emir Abd-ul-Illah, Regent of Iraq. Emir Shakib Arslan is a Druse from Syria, who has played no small part in Arab revival in North Africa. He organized the Bludan Arab Congress in 1937, and his periodical, Le Monde Arabe, published in Geneva, has long been the standard-bearer of the Arab renaissance. The Regent of Iraq was prominent at the time of Lawrence of Arabia's campaign, and he is the author of a plan for Arab Federation.

These leaders are all extremely shrewd men, and their planning is not merely selfish and insular; they realize that the world will be a safe place after the war only if nations abandon the policy of an introspective view of world affairs. In short, that the tendency of nations to hold aloof from each other amounts almost to a direct invitation to stronger and less scrupulous States to make them their prey.

As to the attitude of the British Government, and its satisfaction that the federation plan is good and trustworthy, one need only quote Mr. Eden, who said in a speech at the Mansion House on May 29, 1941: "It seems to me that it is both natural and right that the cultural and economic ties between the Arab countries, and the political ties too, should be strengthened. His Majesty's Government will give their full support to any scheme that commands general approval."

Photos, British and U.S. Official

How the Jeeps Outwit the Japs in Northern Burma

In a country where a 4-mile march may occupy 12 hours and communications are but sketchy, Allied enterprise has tremendous scope. Maintaining flow of vital supplies between Myitkyina and Mogaung, former Japanese bases, jeeps are ferried across the Mogaung River whilst reconstruction of a crazy temporary bridge is in progress (top). The journey continues by railway: rolling stock abandoned by the enemy is hauled by jeeps specially fitted with flanged wheels (bottom).

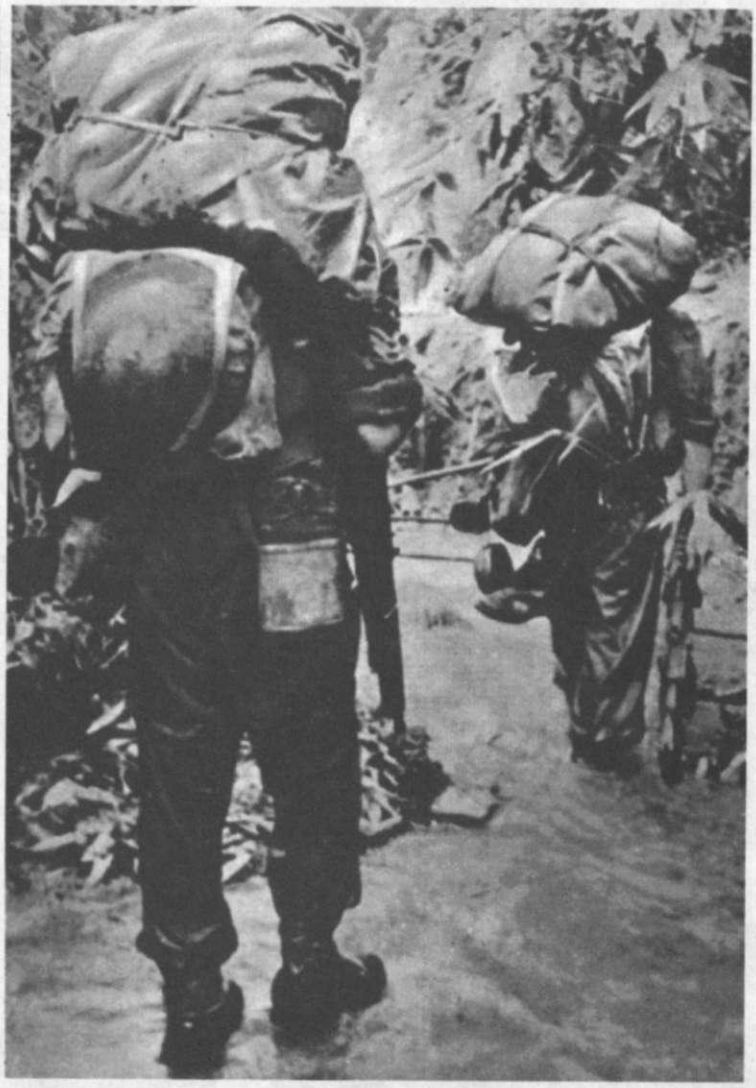
Through Flooded Jungle and Noisome Swamp—

Violent transition from dust-laden, sweltering heat to continual rain and wind-storms of the monsoon season failed to halt the routing of the Japanese invaders in Northern Burma. Twenty-five miles south of Mogaung lies Pinbaw: moving forward to this objective men of the East Lancs Regiment crossed the Samsan Chaung by rubber assault-boat (1). At this point (2) the river presented a tricky ford; every available means of porterage was adopted, from mule to jeep.

Photos British Official

—To Battle at Pinbaw on the Road to Mandalay

Snipers cunningly concealed in the flimsy ruins of Pinbaw were winkled out by these Royal Scots Fusiliers (3) after the first fierce resistance had been overcome. Elephant grass towering in pathless swamps made approach to the village extremely difficult, but this section of Royal Welch Fusiliers made skilful use of the cover afforded by extensive rice fields as they neared the outlying defences (4). Capture of this strongpoint by the 14th Army was effected on August 28, 1944.



Front Line Women Aid Burma Army

Here the going is not too difficult: Corporal J. Balaam leads his patrol through a rice field (top left). But wading through a stream, in full kit (top right), Sergeant A. Beard and Private W. Pybis appreciate to the full the rigours of the Burma climate and scenery as they go forward to relieve men in an outpost. Sickness cases and casualties are tended by British and Indian girls of the nursing services: Miss I. J. Caldwell, Sister-in-charge of a casualty clearing station, and Sister A. Slade talk to a sepoy of the 13th Frontier Force Rifles (bottom). "In the first six months of the present year," said Mr. Churchill, "the British 14th Imperial Army sustained no fewer than 237,000 cases of sickness." In the same period, "We have suffered over 40,000 battle casualties."

Photos, British and Indian Official

VIEWS & REVIEWS

Of Vital War Books

by Hamilton Fyfe

HERE is an idea for one of our British universities. Not Oxford or Cambridge. I don't think either of them would give it welcome. Their faces are still turned too rigidly towards the past. I mean one of our newer and more enterprising universities. I wish one of them would start a Public Opinion Research Department, such as exists and flourishes at Princeton University in the United States, and would commission some deserving young man to go through Britain, into every corner of England, Wales and Scotland, with the object of finding out and telling the world what people are doing and saying and thinking at this present time.

A deserving young American named Selden Menefee was sent on a job of that nature all over America last year. In his book, Assignment U.S.A. (Gollancz, 10s. 6d.), he gives his report on what he saw and heard —and guessed. The book is not easy reading. He is not one of those journalists who can make the driest subjects attractive. Mr. Menefee leaves them dry. One has to swallow hard occasionally to get his facts down. But those who persevere are rewarded. They receive a series of impressions which are a great help towards understanding the American people and the reasons for many things they do and say which to most Britons seem incomprehensible.

Why, for instance, do they chaff us about being slow-coaches, unwilling to whip up and get a move on when rapidity is called for? Here is the answer to that. Large movements of population to war industry centres created urgent need for housing schemes, as happened here, too. We coped with it somehow, in rather a hand-to-mouth fashion. Over there, Mr. Henry Kaiser, the shipbuilder, has shown the same imaginative enterprise in building houses that he shows in constructing ships. He has created a town for 35,000 people with everything they can want in the way of conveniences, comforts and recreations, a town guaranteed to last for twenty-five years. A smaller "dormitory development," as Mr. Menefee calls it, has room for 5,000 workers, a restaurant that can feed 1,500 at a time, a library, a theatre, a gymnasium, game-rooms and fields.

Definition of an Employee

That sort of imagination has to be exercised in America. The demand for good living conditions is too insistent to be disregarded. It is true that Mr. Kaiser is a kindly man. To him "an employee is a human being, not an automaton to be used eight hours a day and left to shift for himself in a strange and overcrowded town the other sixteen hours." He has "rediscovered the old principle that men and women will work more efficiently if they live under conditions that do not violate all concepts of human dignity and decency." He has " the social vision to see the need for housing his workers adequately."

BUT even if Mr. Kaiser were the opposite of all that, he would still have to meet the need. If he failed in this, he would not secure the labour he requires. Labour in the U.S. puts its demands high. It is encouraged to do so by employers like Mr. William Jack and his partner (name of Heintz), who are making aircraft starters and automatic pilots for the Government, near Cleveland, Ohio. They came into public notice for the first time when a Committee of Congress severely criticized the high wages they paid. A semi-skilled mechanic can make £1,500 a year. Many of the women employed take home £25 a week. They work hard for it—twelve hours a day and seven days a week, and "the workers see to it that no one lags."

And it isn't only that Mr. Jack pays high wages to those whom he calls his "associates." He gives them free life insurance policies, free hot lunches, free wrist-watches so that they shan't be late, and at Christmas free turkeys. There is hot coffee on tap all the time in the workshops, and doughnuts are handed round—also free. Cottages in Florida are rented by the company for the workers to spend their fortnight's holiday, with pay, in them. When some had trouble with their feet, Mr. Jack gave an order to a shoe factory for a vast number of shoes such as he wears himself. They cost in the shops £3. He lets his "associates" have them at the wholesale price, thirty shillings. When all this appeared in the papers as a result of the Congress Committee's probing, lots of other employers all over the country "tore their hair," says Mr. Menefee. No wonder. They knew they would be expected more or less to do likewise. That is why Socialism does not appeal very much to the American working-man.

Let's Understand Americans!

OF the Boeing Aircraft Corporation factories in Seattle, Mr. Menefee has a different story. Last year these were short of 9,000 workers needed to produce the Flying Fortresses urgently required. What caused the disinclination to produce them in the Boeing factories would be too long a story, but there was no doubt it existed. There was dissatisfaction among coal-miners too, and for a time the output dropped heavily. The men had many complaints against the colliery owners and against the Government as well. Their rations did not keep up their strength. Their houses were "unpainted shanties with muddy yards and streets and practically no sanitary facilities," and the rents were high. They followed John L. Lewis because he told them his union could obtain better conditions for them. But Mr. Menefee thinks that, if the Government had taken over the mines, the miners would have "put Uncle Sam above John L. Lewis," and there would have been no more serious difficulty.

Here is another example of the forthright manner in which Americans clear away nuisances which we endure with far too much patient resignation. The city of St. Louis suffered from a plague of smoke, caused by the burning of soft coal. It was in perpetual twilight. "Motorists had to use their headlights in the daytime. Curtains rotted from the dirt, lawns had to be replanted each year, trees died from gas poisoning."

IT was worse than Pittsburg—which is saying a good deal! The curse became so deadly that the population of the city fell. People would not stay in it. They went to live outside. So a campaign of protest was started. The Press went at it with rousing effect. The local authorities were compelled to take the worst offenders into court. Look-outs were employed to spot offenders on a large scale. Householders were induced to spend a little more on smokeless fuel. "The result is a city amazingly free from smoke," except when the wind blows direct from the quarter where most of the factories are, and then it is blown over the city—it does not hang like a pall. Perhaps some day the slums of St. Louis, which are disgraceful, may be cleaned up by a similar effort. But there is no sign of this yet.

Here we come upon one of the bewildering contradictions in the character of Americans generally. They will tackle a problem with immense energy and brilliant imagination when it is forced on their notice or when its immediate solution is necessary to the success of, say, the war effort. But other problems they tolerate, maybe with a wisecrack, maybe with a prayer that God will solve it. The racial problem is one of these. Not only does this affect Negroes. There exists also a strong anti-Jewish prejudice, and in Texas the Mexicans have had a good deal to suffer.

Our Country Right or Wrong

Anecdotes have a way of travelling from one end of the country to the other in very quick time. I was once told a story in New York and heard it everywhere I went until I reached California, where it was waiting for me. One joke that was told everywhere during Mr. Menefee's tour was about the first American soldier landing on foreign soil having an Irish name, and the first American business man to secure a contract for munitions being a Mr. Finkelstein. There is something sinister behind jokes like that if they are repeated frequently. And they are.

Sinister, too, is the veiled isolationism which the report describes in very useful detail. Its prophets are trying to harness it to a revival of nationalism. They want the American people to say, "Our country right or wrong, first, last, and all the time, and let the others rip." They might say it if the attitude Mr. Menefee found in so many parts is not altered by the men who return from fighting. That attitude he calls "lack of enthusiasm for the war," and among the Forces there is said to be a desire "to go back to the same kind of world they knew in 1939." Not a promising frame of mind when they are asked to help in building a new world!

PLANNING FOR PEACE AT DUMBARTON OAKS, Washington, Aug. 21-Oct. 7, 1944, British, U.S., Russian and Chinese representatives included (l. to r.) Sir A. Cadogan, head of the British delegation, Lord Halifax, Mr. Cordell Hull, Mr. A. Gromyko, head of the Soviet delegation, and Mr. E. Stettinius, leader of the U.S. delegation. Facts of great help towards a better understanding of the American people are given in the book reviewed above. PAGE 403 *Photo, Topical Press*

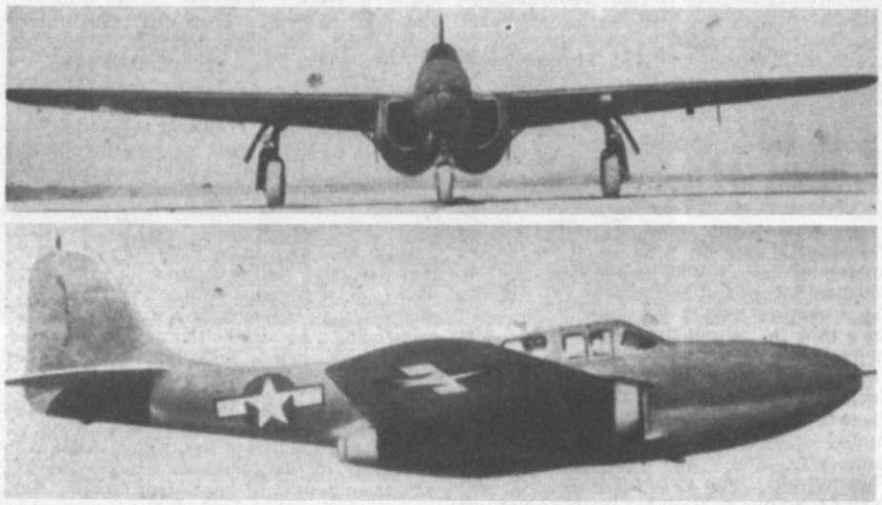
The How and Why of Jet-Propelled Aircraft

Brought to the practical stage during this war, jet propulsion is one of the most important aeronautical developments of recent years. The uses in action of aircraft of this revolutionary type by Great Britain, the U.S.A. and Germany, the development of the various classes and their working principles, are dealt with here by Capt. NORMAN MACMILLAN, M.C., A.F.C.

THERE are at present three classes of jet-propelled aeroplanes: (1) those wholly propelled by jet-reaction and controlled by a human pilot; (2) those wholly propelled by jet-reaction and controlled by robot mechanism; and (3) those employing jet-reaction during part of their flight only. Germany has employed all three, Britain and the United States the first and third. Italy produced an elementary form of the first class, the Campini two-seater monoplane, which used a normal aero piston engine to drive the blower. There are no reports of jet-propelled aeroplanes in the Russian or Japanese air forces.

Great Britain, the United States, and Germany are thus ahead of all other nations in this aeronautical development, which, coming to a practical stage during this war, has been applied first to military aircraft. It has been stated by leading aircraft designers that jet-propelled transport aircraft are not likely to appear on world air routes for another decade.

At the moment jet-propulsion in the first class has been concentrated into fighter aircraft. For two reasons: (1) jet-propulsion is specially suitable for high-speed aircraft because its efficiency increases with the maximum speed of the aeroplane using it; (2) German aircraft priority is for fighters, and the British and American air forces cannot afford to be outclassed in these aircraft.



U.S. JET PLANE, the Bell P59 A Airacomet, passed its experimental tests at the beginning of 1944. The improved jet propulsion engines eliminated airscrews on the new aircraft. These power units were developed from Air Commodore Frank Whittle's designs. Top, front view of the Airacomet showing the twin air intake vents. Bottom, the Airacomet in flight. *Photos, Associated Press*

SIX jet-propelled fighters are nameable today. Three are German—the Messerschmitt 163 and 262, and the Heinkel 280. Two are British—the Gloster prototype and the development aeroplane produced therefrom. One is American—the Bell P59 A Airacomet; it has not yet been used in operations. Both the Messerschmitts have been in action on the Western Front. The British jet-propelled aeroplane went into action against the V1 flying-bombs during the second Battle of London, June 13 to September 5, 1944.

The engine of the British jet-propelled aeroplane is a gas turbine, based on the pioneer work of Air Commodore Frank Whittle, who built his first engine in April 1937. The principle of the gas turbine is that air is led through a duct to a compressor which forces the air under pressure into a combustion chamber into which fuel is injected and fired, initially by electric spark, but when the engine warms up (this takes about 30 seconds) by spontaneous combustion. The gas, under tremendous pressure, then passes through conduits to a turbine which it drives before passing on through the exit tube to the open air.

The driven turbine drives the compressor unit. To start the engine the compressor is speeded-up by an electric starter, much as a motor-car engine is started. High grade aviation fuels are unnecessary; paraffin can be used—and it does not freeze at high altitudes. Gas turbine, jet-propelled aeroplanes develop their maximum speed at high altitudes where, in the rarefied atmosphere, the gas outflow reaction drives them forward at faster speeds for a fraction of the fuel consumed than when flying at lower heights.

THE prototype plane to test the Whittle gas turbine in flight was designed by Mr. W. G. Carter, of the Gloster Aircraft Co., Ltd., and first flew in May 1941 with the late Flight-Lieut. P. E. G. Sayer as pilot. This aeroplane was an extremely clean-shaped single-seater with the single engine mounted within the fuselage. It had the characteristic jet-plane aperture for air entry in the fuselage nose; a smaller aperture under and behind the tailplane discharged the high velocity gas-flow. The tricycle undercarriage had exceptionally short struts, because it was unnecessary to provide the ground clearance that is demanded by the conventional rotating airscrew. This feature of jet-propelled aeroplanes saves both weight and stowage space, both important in an aeroplane, especially a fighter. Tricycle undercarriages are therefore likely to become standard in jet-propelled aircraft. (See illus. p. 354.)

The current British jet-propelled fighter is an improved aircraft. Its performance is secret, but it is very fast and manoeuvrable, and is believed to be better than anything the Germans have. The Messerschmitt 163 is a single-seater, single propulsion unit aeroplane, but it is not fitted with a gas turbine; a jet reaction unit working on the rocket principle supplies its thrust. It has been described as a flying firework. In appearance it is of the pterodactyl, or bat-like, aircraft. A German radio commentator said that two Me 163s were shot down in combat over Germany with U.S. bombers and escorting fighters during the last week in July 1944.

The Me 262, called the Schwalbe (Swallow), and the Heinkel 280 are both fitted with two Junkers Jumo 004 gas turbine, jet-propelling engines, and are single-seater fighters. In the Me 262 the engines are mounted underneath the wings, fairly close to the fuselage. This aircraft carries four 30-millimetre Mark 108 cannon-guns, and can be used as a fighter-bomber. Its speed is in excess of 500 m.p.h. It has a fast rate of climb, but it is reported to be less manoeuvrable in combat than current airscrew fighters of the British and American air forces.

The first enemy jet-plane to fall in Allied lines was shot down over Nijmegen on October 5 by six R.A.F. Spitfires; it was a Me 262. A single Tempest destroyed another on October 13.

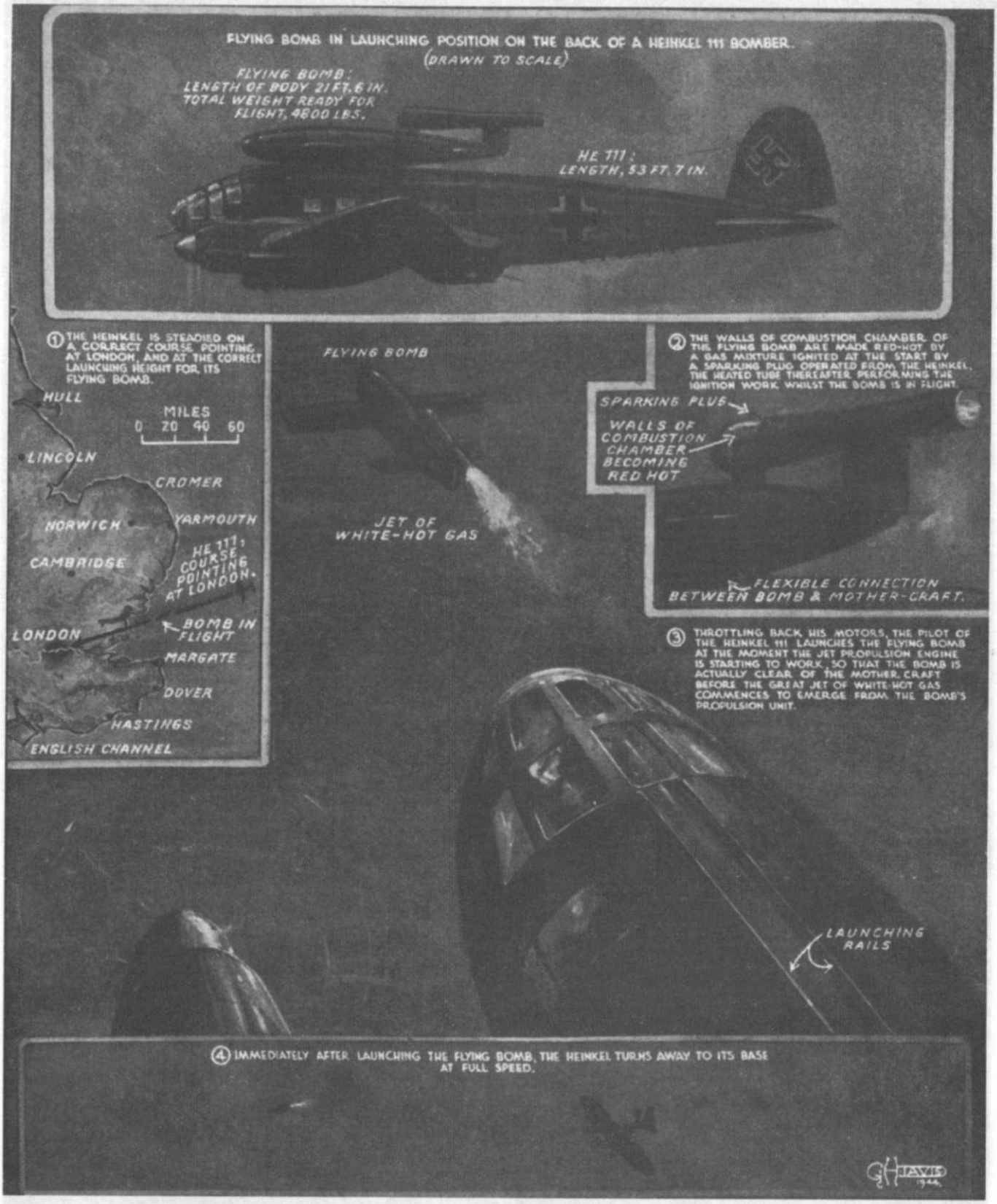
The Bell P59 A Airacomet single-seater fighter is powered with two General Electric Whittle-type gas-turbine engines and carries four 5-in. machine-guns. The engines lie alongside the fuselage below the wings; this makes the rather low tricycle undercarriage of wider track than usual. The closeness of pilot, controls and engines may make these aircraft vulnerable in combat with other aircraft. The Airacomet weighs more than five tons, has a wing span of 49 feet, and is said to leave no vapour trails in flight. The American gas-turbine was built on reverse lend-lease from British designs. The Bell prototype jet-propelled aeroplane first flew in October 1942.

THE second class of jet-propelled aircraft—robots—is so far confined to the V1 weapon, the flying bombs, fitted with a simplified propulsion unit which is merely a combustion chamber with air intake valves which close when the gas pressure rises, thus forcing the gas through the rear orifice tube and so driving the bomb forward by a series of reactionary discharges. Fuel is fed into the combustion chamber by compressed air carried in bottles within the fuselage, and is fired by the heat within the combustion chamber when the engine is warmed up. (See facing page).

The flying bombs stall, i.e. lose flying speed, at 150 m.p.h. The air valve ceases to function at 170 m.p.h. They must be launched, either from ramps or aircraft, at 185 m.p.h. They carry 130 gallons of fuel, 1,870 lb. explosive, and weigh fully laden 4,700 lb. The engine develops 600 h.p. at a reaction frequency of 40 cycles per second, giving a normal flying speed of 360 m.p.h. Their normal range is 150 miles at 2,000 ft., and their service ceiling is 10,000 ft. Length of fuselage is 21 ft. 10 in.; propulsion unit is 11 ft. 3 in. long with an overhang of 3 ft. 6½ in. The wing span varies with different types of wings from 16 ft. to 17½ ft. Their flight is controlled by a repeater compass and an automatic pilot. Range is determined by a small airscrew-driven log which can be pre-set to the mileage desired.

The third class of jet-propelled aircraft is fitted with rocket units to assist take-off or increase rate of climb. The rocket units are mounted beneath the wings near the fuselage or on the fuselage near the tail. Junkers Aircraft Works has experimented with rocket devices for over 15 years. American Mitchell bombers have used rocket-propulsion units for take-off. So have Swordfish and other British Fleet Air Arm aircraft. Their discharge lasts for about four seconds.

Nazi Flying Bombs Are Launched This Way Now


FLYING BOMB IN LAUNCHING POSITION ON THE BACK OF A HEINKEL 111 BOMBER.
(DRAWN TO SCALE)
FLYING BOMB:
LENGTH OF BODY 21 FT. 6 IN.
TOTAL WEIGHT READY FOR FLIGHT, 4800 LBS.
HE 111:
LENGTH, 53 FT. 7 IN.
1 THE HEINKEL IS STEADIED ON A CORRECT COURSE, POINTING AT LONDON, AND AT THE CORRECT LAUNCHING HEIGHT FOR ITS FLYING BOMB.
HULL
MILES
0 20 40 60
LINCOLN
CROMER
NORWICH
YARMOUTH
CAMBRIDGE
HE 111: COURSE POINTING AT LONDON.
LONDON
BOMB IN FLIGHT
MARGATE
DOVER
HASTINGS
ENGLISH CHANNEL
FLYING BOMB
JET OF WHITE-HOT GAS
2 THE WALLS OF COMBUSTION CHAMBER OF THE FLYING BOMB ARE MADE RED-HOT BY A GAS MIXTURE IGNITED AT THE START BY A SPARKING PLUG OPERATED FROM THE HEINKEL, THE HEATED TUBE THEREAFTER PERFORMING THE IGNITION WORK WHILST THE BOMB IS IN FLIGHT.
SPARKING PLUG
WALLS OF COMBUSTION CHAMBER BECOMING RED HOT
FLEXIBLE CONNECTION BETWEEN BOMB & MOTHER-CRAFT.
3 THROTTLING BACK HIS MOTORS, THE PILOT OF THE HEINKEL 111 LAUNCHES THE FLYING BOMB AT THE MOMENT THE JET PROPULSION ENGINE IS STARTING TO WORK, SO THAT THE BOMB IS ACTUALLY CLEAR OF THE MOTHER-CRAFT BEFORE THE GREAT JET OF WHITE-HOT GAS COMMENCES TO EMERGE FROM THE BOMB'S PROPULSION UNIT.
LAUNCHING RAILS
4 IMMEDIATELY AFTER LAUNCHING THE FLYING BOMB, THE HEINKEL TURNS AWAY TO ITS BASE AT FULL SPEED.
G.H. DAVIS 1944.

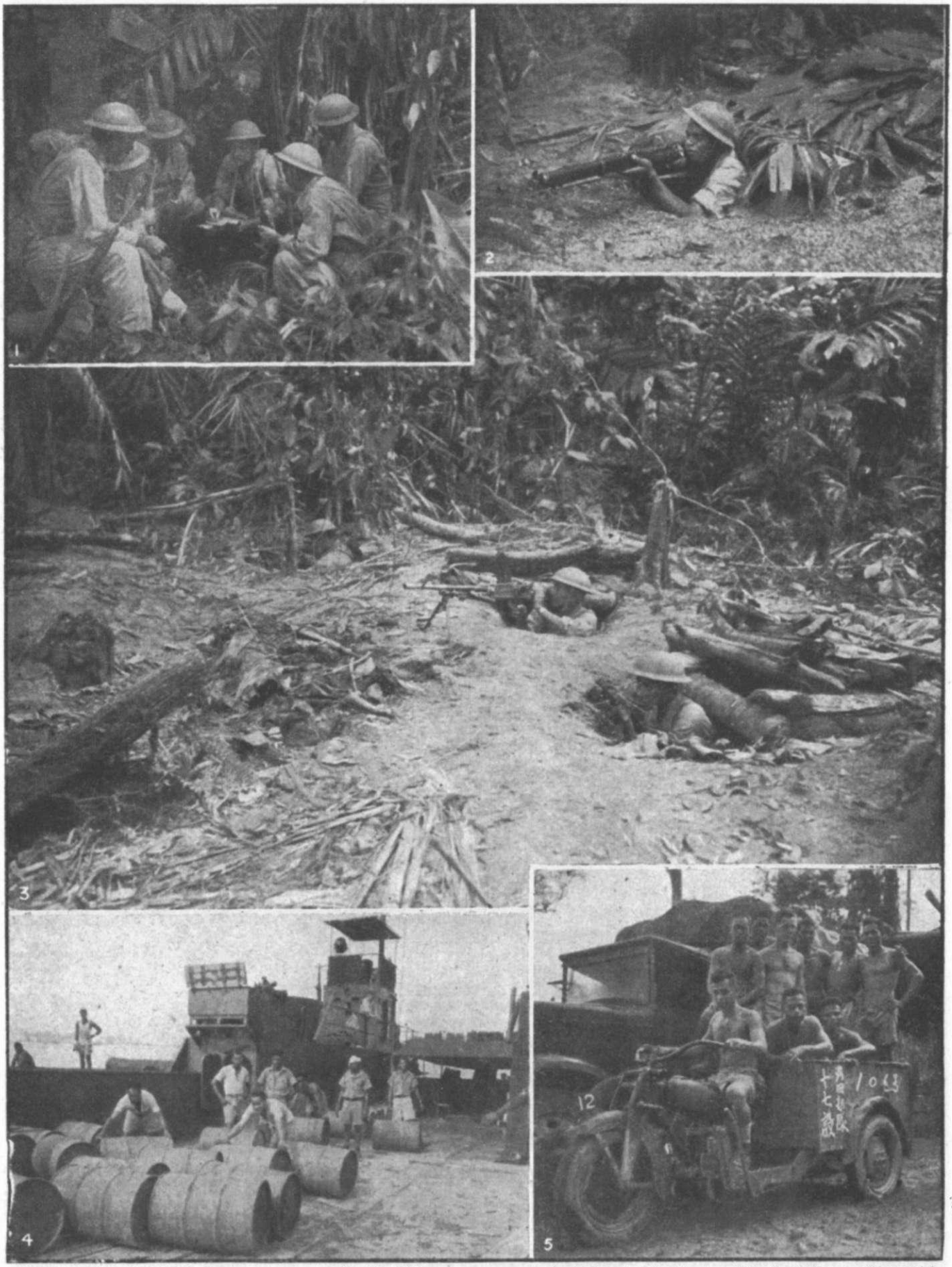
DRIVEN FROM THEIR COASTAL LAUNCHING SITES in France and Belgium, the Germans resorted to the "pick-a-back" method of sending their flying-bombs against England—a method founded on the British-built Mayo composite aircraft of 1938. The flying-bomb is perched on launching rails on the top of the fuselage of a semi-obsolete Heinkel 111, flown over the North Sea, pointed at London and then released.

The operation has its dangers, the main problem being to launch the bomb clear of the parent aircraft before the flaming jet of gas begins to stream from the bomb's power-unit. It is conjectured that, to avoid setting the parent aircraft ablaze, the combustion chamber in the bomb is heated, the Heinkel engines sharply throttled back and the bomb launched almost simultaneously. The computed range of the flying-bomb is not above 150 miles, so that the parent aircraft must fly to within range of the East Coast, aim its bomb, launch it, and return to base, all the time trying to elude our patrols on the watch for the tell-tale flash from the flying bomb's tail. Numbers of these carrier Heinkels have already been shot down, before or after launching their deadly missiles.

As regards the actual launching, the walls of the bomb's combustion chamber are rendered red-hot by a gas mixture ignited by a sparking-plug operated from the parent aircraft. While the bomb is in flight ignition is effected by the heated tail-tube. The gas emerges in a series of jerky impulses at a frequency of 45 per second.

Drawn by G. H. Davis, by courtesy of the Illustrated London News

With British-Trained Fijians in the Pacific Battle

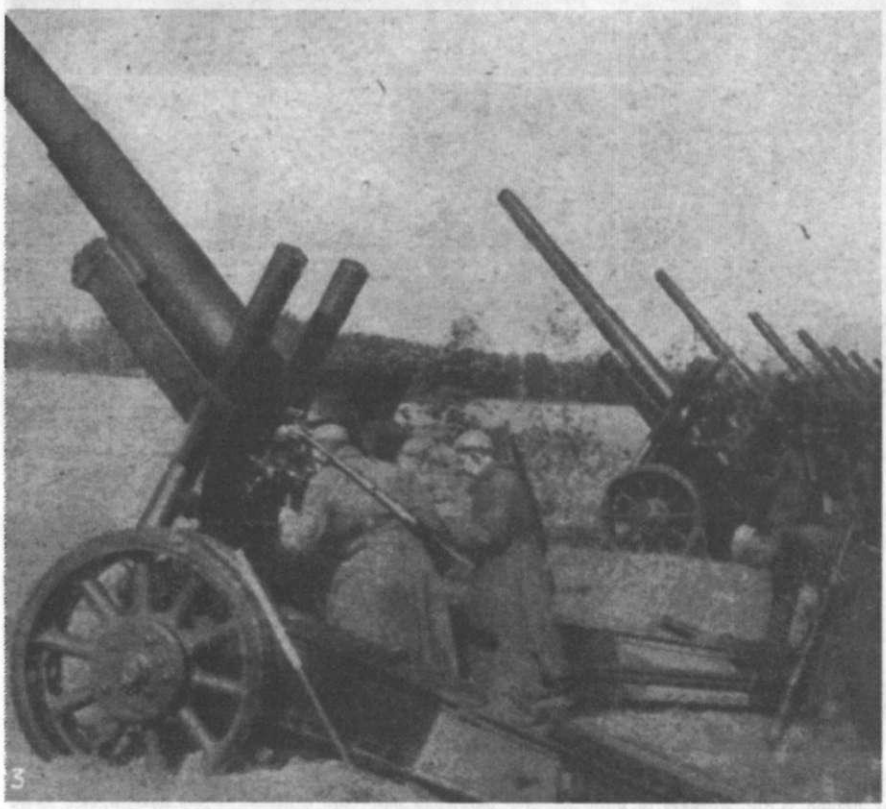


BEATING THE JAPANESE wherever they meet, the Fiji Military Forces were sent by the British authorities to assist in the Pacific war at the special request of the U.S. On Bougainville Island, in the Solomons (invaded on Nov. 1, 1943, by the Japanese and recaptured by April 4, 1944) platoon officers were briefed before battle (1). From a fox-hole a Fijian takes careful aim (2); others occupy dug-in night positions (3). A dockyard company unload supplies (4). One of the Fijian troops' trophies was this Japanese motor-cycle truck (5). PAGE 406 *Photos, New Zealand Official*

Red Army Avalanches Sweep on to the Reich

TROOPS OF THE U.S.S.R., according to an order of the day issued by Marshal Stalin on October 18, 1944, entered Czechoslovakia on a front of 170 miles; a Russian command post is seen in action (1). A Soviet raiding party riding on self-propelled guns pass through a north Transylvanian village (2). In the far north the Red Army, on the shores of the Arctic, freed Kirkenes in Norway on Oct. 25. Heavy artillery (3) pounded enemy positions south-west of Shavli in Lithuania, half-way between Riga and the East Prussian border.

Photos, U.S.S.R. Official, Pictorial Press, Planet News. Map, The Daily Telegraph



Danes Stirred to Resistance by Nazi Decree

THE GERMANS DECREED on Sept. 19, 1944, that all Danish policemen should be disarmed. A fierce clash occurred outside King Christian's residence, Amalienborg Castle, when German Marines tried to carry out the order. Aided by civilians, police erected barricades (1) from behind which they effectively resisted (3). A salt-vendor helped A.R.P. workers to build another barricade from the contents of his barrow (2). Many cycled through the streets to demonstrate against the German declaration of a state of emergency (4).

Photos, Keystone

I WAS THERE! Eye Witness Stories of the War

10,000 Cried for the Blood of Greek Traitors

With the British invasion force that landed on the Greek mainland early in October 1944 went war reporter Walter Lucas. His story of the great welcome that was given and his behind-the-scenes glimpse of life in Greece today appears by arrangement with The Daily Express. See also page 394.

I SHOULD call this landing of Allied troops on the Greek mainland, the first since 1941, a mixture of Aston Villa returning home after winning the Cup and the Battle of Flowers at Nice. From the word go it was welcome. From miles out at sea we could see through the glasses a dark mass of people on the quayside at the little port of Katakolon, on the north-western coast of Peloponnese, and faintly over the water came a peal of church bells. Up to that moment we did not know what we could expect. Omens had been bad,

Within sight of this land of ancient mythology we were struck by a tempest. Two whirlwinds descended upon our convoy like two furies. They thrashed their way hither and thither, travelling before the wind at 30 to 40 miles an hour. As we zigzagged madly one of them lashed our stern so that we spun toplike. We nearly had to jump for it. But that was all our troubles.

When we rounded the little breakwater that shelters the tiny harbour of Katakolon we were met by bouquets and not bullets. Massed along the beach—a sticky mass of gluey mud after the torrential rains—were thousands of people from all over the surrounding country. As we grated the shore the sounds of thousands of clapping hands sent echoes around the bare encircling hills.

Four little girls stepped forward and garlanded Squadron-Leader John Wynne, from Edinburgh, in command of the R.A.F. Regiment who are supplying an important part of the land forces for this invasion. But the highlight of this story is not military: it is human. What I found in Greece, the first British correspondent to land on the Greek mainland for three and a half years, is of great importance. I feel that here we have the good will of people who have suffered more than most in this war and who still have deep faith in the British.

My own remarkable experiences will show how the Greeks feel towards us. Shortly after we landed three of us were to go to Pirgos, a large city of 20,000 inhabitants about 12 miles away. With me were Milton Bracker, of the New York Times, the only American correspondent on the expedition, and Flight Officer Bob Williams, of Canadian R.A.F. Public Relations. We were piled into an ancient truck, the only one in the whole district which the Jerries had not stolen, with 30 or more excited Greeks.

We groaned and wheezed along over the muddy, bumpy road, passing through little villages where the cobbled streets were strewn with flowers and branches of trees, beneath flowered arches of welcome and between masses of wildly clapping peasants. In course of time, as was to be expected, the ancient truck gasped to a standstill and nothing would make it budge. We got out and walked the last mile into Pirgos.

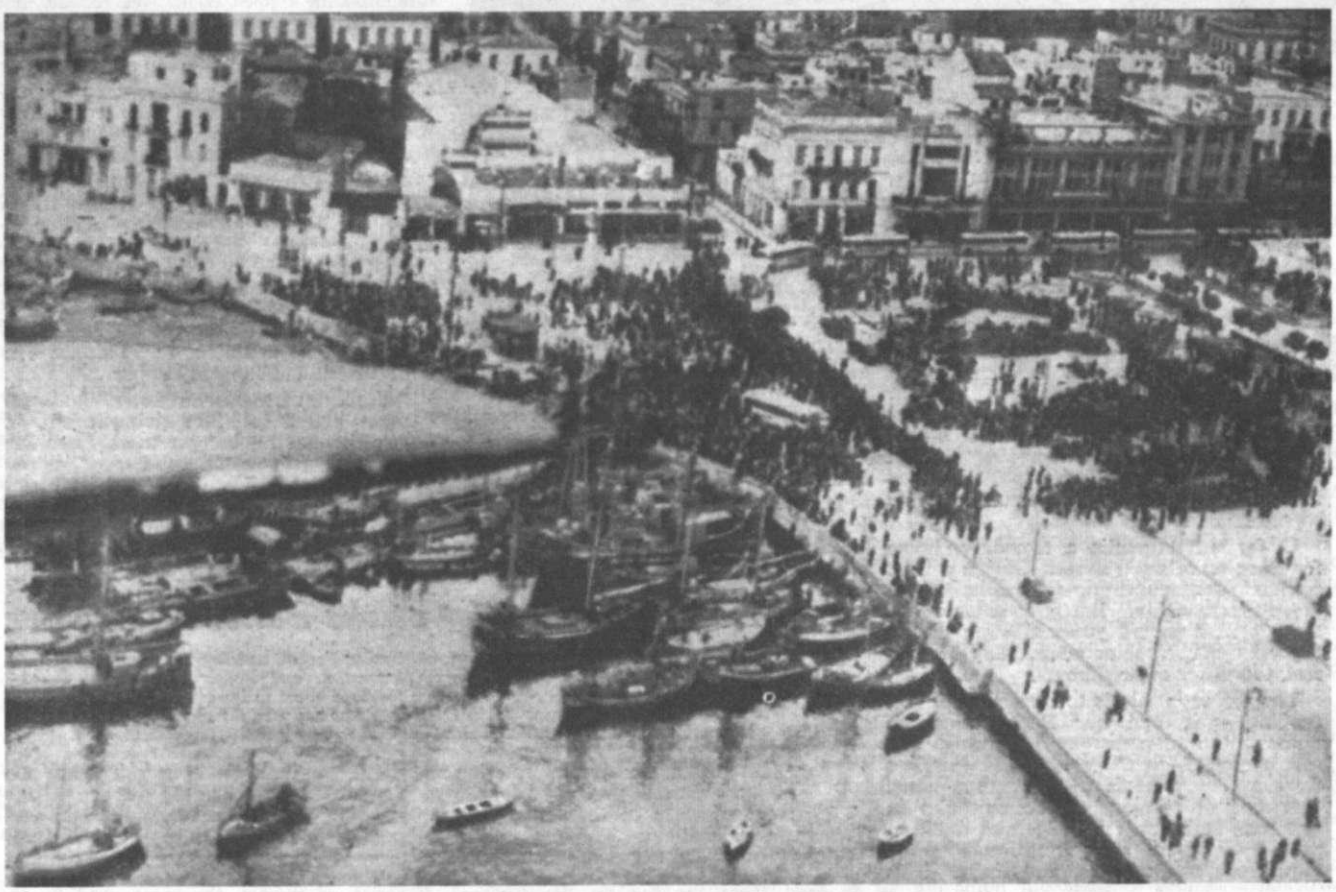
It was dark by now. By the time we arrived in the town we were the head of a long procession of cheering and clapping people. We marched through the main street between masses of them, with church bells clanging, and flowers showering on our heads. The main square was packed. We were taken to the town hall, where we were publicly welcomed by the chief priest and the city fathers. Addresses were presented to us in Greek and translated into French, and we replied on behalf of the Allies in French, which was then translated back into Greek

WE were then taken to a balcony and greeted with wildest enthusiasm. Again we had to make speeches. That night we were taken to the Archbishop's Palace and fed and given beds. The archbishop himself was in the mountains where he has been for more than a year the leader of the partisans. We were asked to stay for Solemn Mass for the Liberation in the Greek Orthodox Cathedral the next morning.

As we walked to the service the streets were lined with members of the armed E.A.M., partisan troops, keeping back the masses of excited clapping people. Inside the cathedral there were 2,000 to 3,000 people. We were solemnly led to seats near the High Altar and presented to rows of black-bearded and magnificently robed priests.

Near us were many sad, pathetic, lined and tear-stained faces of widows whose husbands had been killed by the Germans or Greek quisling troops. Some were old and bowed, others were young, but all were miserably poor, and dressed in shabby, torn, stained black clothes. After the cathedral service we were marched back to the town hall with a bodyguard of partisans armed with every type of firearm.

Some were stolen from the Germans, Italians or Bulgars, others were given to them by the Allies. Their uniforms were



TUMULTUOUS RECEPTION awaited our troops when they landed at Piraeus, the port of Athens and 28 miles from the capital, on October 14, 1944. Photographed from an R.A.F. plane, this scene shows crowds assembled at the quayside—a foretaste of the overwhelming welcome that was to be given our men in the capital itself, where thousands of people had surged excitedly through the streets since dawn. An account of Greek reactions to the Allied invasion is given above. *Photo, British Official*

equally haphazard, many of them were without boots and all wore rags. Once again we had to appear on the balcony and make speeches while the partisans paraded below and 10,000 people cried for the blood of the Greek traitors.

For the rest of the day we were taken in the same ancient truck, now restored to life, along 60 miles of terrible, muddy tracks to Araxo. We were escorted by the chief priest in his robes, with flowing beard and black cap, and by four of the leading citizens of Pirgos. At every village and town we were again called upon to speak from the town hall while the church bells clanged. We were presented with wine, strong, heady stuff.

Behind all this welcome and misery there is a vicious political quandary facing the Allies in Greece. There is a civil war raging in this country. At Pirgos two weeks ago there was a bitter battle between partisans and Greek quisling forces. Hundreds were killed and many houses burned down with their occupants burned to death inside.

Feeling has run at flood. For the partisan the quisling Greek is almost a greater enemy than the German. Unhappily the issue is not clear-cut as between the partisans and the quislings. It looks as if our military operations against the Germans are likely to be complicated and hindered in many respects by this internecine war.

"HOPING THIS FINDS YOU——." These smiling, perspiring Lancashire Fusiliers write home from the Burmese jungle. How our troops endeavour to "domesticate" themselves in their swampy surroundings is described in this page. The monsoon season ended, the Burma front flared up with the capture of Tiddim by Indian troops of the 14th Army, announced on October 19, 1944. **See also illus. pages 399-402.** *Photo, Indian Official*

Our Home-from-Home in the Burmese Jungle

Back-stage in the vast theatre of war are the fighting men of Burma—with their thoughts like the rest of us. How do they visualize Civvy Street after a long absence? "Home is the place we can't dream about any more," says Sergeant G. C. Smith, in this revealing and intensely human story which we reproduce from the News Chronicle.

INTO the Burma jungle village—or what the Japs have left of it—we introduce the elements of domesticity. With a sharp "dah," the wicked-looking jungle-machet, you can go and cut yourself a bed-sitting room from the living bamboo on the doorstep. It's a simple job, and so is the furniture; and, up to a point, we are simple soldiers.

Under the tarpaulin a temporary home for three takes rapid shape. Maybe a faint spiritual likeness of the far-away upstairs-and-down glows within. But faint is the word, for it's hard to kid yourself here; things beyond our control or adaptability are too real, too nosey as neighbours.

The monsoon rain is too wet and the sun too hot—yes, and our British sense of humour too all-embracing, enduring, and case-hardened—to allow us to kid ourselves we can set up home on a bamboo basis. The medical category of the mosquito in this semi-liquid area is A1+ and a bit to spare; it bites straight through green battledress, underclothes, and socks. It is particularly anxious to share our home life in the evening.

Nature is bountiful here and nothing can stop it—but give me Epsom Downs and a thick overcoat. One of our table-legs, set in the mud floor of the tent, has burst into light-green leaf. It was a small branch sliced off a fig tree; but we don't anticipate staying long enough to pick figs from the leg of our dining-table. It shows what can happen in a home like ours.

But if Nature is bountiful so is the cook-house. It adds a lot to the atmosphere of homeliness to smell bacon frying every 7 a.m.; the smell of bacon drifting through the bamboo—you can't beat it with any rare Oriental perfume or any bouquet of jasmine. We "come and get it" and bring the good breakfast home, with one eye on the plates and the other on our foothold in the mud. Our food is more than good, it is near a miracle—a miracle about which all cannot yet be told. And the cheerful cooks can work the tin-opener with as much imagination as efficiency. What more can be expected in the jungle?

A few "Penguins" and "Guild Books" add another touch to declare the tarpaulin the abode of men who cling to culture. The books themselves have a struggle with the damp-rot, and it always seems to be the last few vital pages of the detective story that disintegrate first. Still, life is an unsolved mystery, they say. The tent in the jungle isn't home. Home is the place we can't dream about any more. After a couple of years away—and more "away" than the little word can ever mean in other theatres of war—it is difficult even to lie awake and try to picture the suburban villa and the faces of our loved ones. More than time and distance separate us from all that is dear; there is a veil that gets thicker, as the jungle gets thicker beyond the paddy-fields.

OUT of one of the swift jungle twilights, when the night-orchestra was tuning-up, came "Bomb-happy," the cat. He looked like a small piece of grey flannel stuck in the mud. Then he picked his delicate way towards the tent. "My God! A—— cat!" It was our tent-mate corporal, jumping up as though he had seen a ghost or a hundred Japs. He loves cats, tough as he is, whether they slink along Civvy Street or burst out of the bamboo. "Hell, he's thin, the poor little devil." he said; with the cat in his arms, "Open a tin of sardines, quick!"

His fur is a dusty blue-grey, of a fine texture, making a thick coat. We reckon that without his fur he would cast a shadow like a pencil. But he's had a rough time all his little life, obviously, with his six months or so of bomb-dodging and getting out of the way of retreating Japs. His eyes are stuck wide-open and all over his face like an owl's, as though on the look-out for a Jap boot.

We don't kick him, and he's getting to like it that way. We got him to purr one evening. With all the stroking and the gentle massage of his sardine-lined tummy, while he luxuriated on a dry sack, we thought it was about time he showed a little appreciative acknowledgment. But he must have suddenly become aware of the unusual noise and been startled by it, for he looked sharply at himself and stopped the purr.

And no more caressing or sibilant endearment could get him going again. Cats are like that for independence, from Burma to Brighton. So "Bomb-happy" is on the tent-strength—if we can grab him the morning we move off again. Anyway, we hope to incorporate him with our other scraps of domesticity, our other bits of "home," in the next jungle village.

We Do Our Soldiering at the Bottom of the Sea

Doing the lion's share in the work of clearing French and Belgian Channel ports are British sappers of Port Construction and Repair Companies. In these companies are soldiers trained to grope about in the pitch darkness of the sea-bed. Warrant Officer O. Davies, who has been diving in principal ports occupied by the Allies since Algiers, here relates his experiences.

THE first thing we do on entering a newly captured port is to make a reconnaissance of the damage done. The main difficulty is the pitch darkness. We find our way about under water by using a line with a weight on the end which is dropped from the tug on the surface. From this vertical line another rope is attached about three feet from the weight, which you hold on to as you grope about. The attendant on the tug can see where you are by the air bubbles coming to the surface, and by jerking on a rope attached to the diver he guides him to the left or right.

The great thing is never to get panicky. A series of signals, the same used by the Royal Navy and also in civilian operations, is used between the attendant and the diver. These are supplemented by additional

signals for local work. One tug on the breast rope means: "Are you O.K.?"; two tugs mean "I am sending you a slate" (the diver has a pencil and slate for messages), three tugs mean "I am sending you a rope," and four tugs mean "Come up." Four long tugs followed by two short mean "Come up; I'm pulling you up."

SIGNALS on the air pipe run thus: One means the diver wants less air, two that he wants more air, three "You are holding me too tightly," and four is the emergency signal. This latter is never used except in cases of extreme distress. There is also a telephone in the diver's helmet for exchange of messages, but owing to the difficulty of recharging batteries we rely chiefly on signals.

Our company began the work of underwater salvage and repair during the First Army's landings in North Africa. One of the pleasantest jobs we ever had to do was to repair the ship we'd sailed in from England. She had been damaged; we dived, repaired the damage with a timber patch, pumped out the water, the ship was refloated and later towed to Gibraltar.

Another interesting job at Algiers occurred when a party of Intelligence Corps officers ran their car into a dock. They came to us and told us there were some valuable documents inside the car, and could we salvage them? It took us two hours to locate the car, but we found it, hoisted it to the surface with a small mobile crane which is part of the company's equipment, and were then able to hand over the leather case containing the documents. They were still readable.

Also at Algiers a ship blew up which was being loaded with German ammunition for dispatch to England. The explosion blasted a considerable part of the quayside. The wall was constructed of cement cubes weighing a hundred and sixty tons each, and our job was to sling the blocks by crane and drop them into position below water. The clear water made this job fairly easy. At Bône we patched up a destroyer and several merchant ships. At La Goulette, the port for Tunis, we patched the quayside which had been damaged by bombing; and also widened the canal so that coastal craft, supplying our troops finishing off the Germans in Cap Bon, might pass through. This widening we did by exploding charges of German ammunition under the canal banks.

SALVAGING AT NAPLES, the crew of a U.S. Navy tug found this wrecked Italian ship sunk by the enemy in an attempt to block the harbour before the capture of the port by the 5th Army on Oct. 1, 1943. *Photo, U.S. Official*

We had a few minor jobs in Sousse and Sfax, but our next big job was at Naples. The Italians had had, lying about for some time, huge cement tanks which had sprung a leak and sunk in the harbour. We repaired the leaks with tarred rope and pumped them clear of water, when they floated to the surface. We also salvaged a floating crane by patching up its pontoon, pumping out the water, fitting air valves to the pontoon, attaching tubes, and blowing in compressed air.

And then to Anzio. We arrived there three days after the initial landings and were below water, working on a sunken landing-craft, when Jerry came over and bombed the port. The bombs fell in the sea a mile away from us, but owing to the concussion being twelve times magnified under water it was like getting a crack on the head with a hammer. The main problem at Anzio was the mud. You sank in it up to your chest. By pressing the air valve you made yourself more buoyant, but you had to take care you didn't float straight to the surface. On a hard bottom, of course, you travel heavy.

Our first diving job was to salvage two tugs. We did this at low tide, using two converted Thames barges either side of the tugs. From the barges we passed slings under the keels of the tugs, burrowing in the sand and thrusting the slings through with a pole. At high tide the tugs rose on their slings, and a bulldozer, working from the land, tugged the barges and the tugs ashore.

We had a rush job there when we were called out to unravel a steel cable which had fouled a merchantman's propeller. The ship had to sail that night. It was dark, and we had to do everything by touch. Halfway through the work a smoke-screen was put down, and although we were only two yards from the ship we couldn't see it. Jerry came over and bombed the port. The captain of the ship gave orders for us to abandon the work, and we set off to try to reach the quay.

For two hours, surrounded by fog and dark and shrapnel, we tossed backwards and forwards in the harbour trying to get home. Our little vessel was a Frenchman manned by a French crew and we were going here and there shouting out in English for assistance. After an hour and a half without any response to our English, we thought we'd try yelling in French. We did, and at last we got a response. An angry voice yelled back: "Is there nobody here who can bloody well speak English?"

OUR DIARY OF THE WAR

OCTOBER 11, Wednesday *1,866th day*

Western Front.—Allied attack on Aachen resumed after rejection of ultimatum.

Air.—R.A.F. Lancasters breached dyke on Walcheren Island. U.S. bombers attacked areas of Cologne and Coblenz.

Russian Front.—Cluj, Transylvania, and Szeged, Hungary, captured by Red Army.

Far East.—U.S. carrier-aircraft attacked Formosa, destroying 221 enemy aircraft.

OCTOBER 12, Thursday *1,867th day*

Western Front.—British troops in Holland retook Overloon, near the Maas.

Air.—Ruhr oil plants, aircraft factories at Bremen and marshalling yards at Osnabruck, attacked by Allied bombers.

Russian Front.—Oradea-Mare, Transylvania, captured by Red Army.

Balkans.—Athens freed by Greek patriots; Allied glider-borne troops landed at airfield.

Far East.—Formosa again attacked by U.S. Task Force; 175 more aircraft destroyed.

General.—M. Mikolajczyk, Polish Prime Minister, arrived in Moscow.

OCTOBER 13, Friday *1,868th day*

Western Front.—German armour outside Aachen smashed by Allied aircraft and artillery.

Russian Front.—Riga, capital of Latvia, captured by Red Army.

Far East.—U.S. carrier-aircraft again attacked Formosa. Luzon, Philippines, also bombed.

OCTOBER 14, Saturday *1,869th day*

Western Front.—Allied troops made fresh crossing of Leopold Canal.

Air.—Duisburg hit by more than 1,000 R.A.F. bombers by day, in greatest raid of war on German city. Cologne bombed by more than 1,000 U.S. air craft. R.A.F. again bombed Duisburg at night.

Balkans.—Athens and the Piraeus occupied by British airborne and naval units.

Russian Front.—Soviet long-range aircraft attacked Tilsit, E. Prussia, and ports of Memel and Libau.

Far East.—Formosa bombed by Super-Fortresses from China.

Sea.—Carrier-aircraft of Home Fleet attacked shipping off Norway.

OCTOBER 15, Sunday *1,870th day*

Air.—R.A.F. Lancasters hit Sorpe Dam on the Ruhr with "earthquake" bombs.

Russian Front.—Petsamo, Finland, captured by Soviet land and naval units.

Hungary.—Adm. Horthy broadcast that Hungary had asked for armistice.

Far East.—U.S. carrier-aircraft attacked airfields at Manila Bay, Philippines.

General.—Death from wounds of Field-Marshal Rommel announced by Germans.

OCTOBER 16, Monday *1,871st day*

Western Front.—German escape gap from Aachen closed. U.S. troops withdrew from Fort Driant, Metz.

Balkans.—British troops landed on Greek island of Lemnos.

Russian Front.—Soviet long-range bombers attacked railway junctions of Insterburg, Gumbinnen and Stalupenen in E. Prussia.

Hungary.—Adm. Horthy deposed by Major Szalasi, head of pro-Nazi Arrow Cross party.

Far East.—Super Fortresses from China again attacked Formosa.

General.—King George VI returned to England after five-day tour of battle areas in Holland and Belgium.

OCTOBER 17, Tuesday *1,872nd day*

Air.—U.S. bombers again attacked Cologne. R.A.F. Lancasters bombed dyke on Walcheren.

Russian Front.—Soviet bombers attacked railway junction of Goldap, E. Prussia.

Pacific.—U.S. carrier-aircraft bombed Luzon, Philippines.

Indian Ocean.—Nicobar Is., Bay of Bengal, bombarded by Eastern Fleet.

OCTOBER 18, Wednesday *1,873rd day*

Western Front.—Venray, road junction near Maas, captured by 2nd Army.

Russian Front.—Announced that Soviet troops had captured five Carpathian passes and advanced into Czechoslovakia.

Germany.—Hitler and Himmler decreed conscription of all able-bodied men from 16 to 60 in Volkssturm (Home Guard).

OCTOBER 19, Thursday *1,874th day*

Air.—U.S. bombers attacked Mainz and Ludwigshafen-Mannheim. At night R.A.F. bombed Stuttgart and Nuremberg.

Burma.—Indian troops of 14th Army captured Tiddim.

OCTOBER 20, Friday *1,875th day*

Western Front.—City of Aachen cleared of German troops.

Russian Front.—Belgrade, capital of Yugoslavia, freed by Russian and Yugoslav troops. Debreczen, Hungary, captured by Soviet forces.

Pacific.—U.S. troops under General MacArthur landed on island of Leyte, Central Philippines.

Italy.—8th Army Forces in Adriatic sector entered Cesena.

OCTOBER 21, Saturday *1,876th day*

Western Front.—Commander of Aachen garrison surrendered.

Pacific.—U.S. troops captured Tacloban, capital of Leyte, and its airfield.

OCTOBER 22, Sunday *1,877th day*

Western Front.—Breskens, port in Scheldt pocket, captured by Allied troops.

Air.—Hamm, Munster, Hanover and Brunswick attacked by U.S. bombers. R.A.F. bombed Neuss, near Dusseldorf, by day, and Hamburg at night.

Russian Front.—Announced that Soviet troops had reached Norwegian frontier west of Petsamo.

General.—Mr. Churchill arrived back from talks in Moscow.

OCTOBER 23, Monday *1,878th day*

Air.—More than 1,000 R.A.F. bombers made night attack on Essen.

Russian Front.—Announced that Soviet forces had broken into East Prussia on 85-mile front.

Pacific.—Naval battles between U.S. and Japanese forces began off Philippines.

General.—Great Britain, U.S.A. and Russia recognized Gen. de Gaulle's administration as Provisional Government of France.

OCTOBER 24, Tuesday *1,879th day*

Western Front.—British 2nd Army troops entered Hertogenbosch.

Russian Front.—Polish town of Augustovo, near S.E. border of E. Prussia, captured by Red Army.

Flash-backs

1939

October 14. *H.M.S. Royal Oak sunk by torpedo in Scapa Flow.*

October 16. *Cruisers Southampton and Edinburgh and destroyer Mohawk damaged in bombing raids on Firth of Forth.*

1940

October 26. *Liner Empress of Britain bombed and sunk.*

1941

October 12. *Briansk evacuated by Red Army forces.*

October 16. *Rumanian troops entered Odessa, on Black Sea.*

October 19. *State of siege proclaimed by Stalin in Moscow.*

1942

October 17. *Schneider works at Le Creusot wrecked in daylight raid by 94 Lancasters.*

October 23. *8th Army launched offensive at El Alamein.*

1943

October 13. *Italian Government declared war on Germany.*

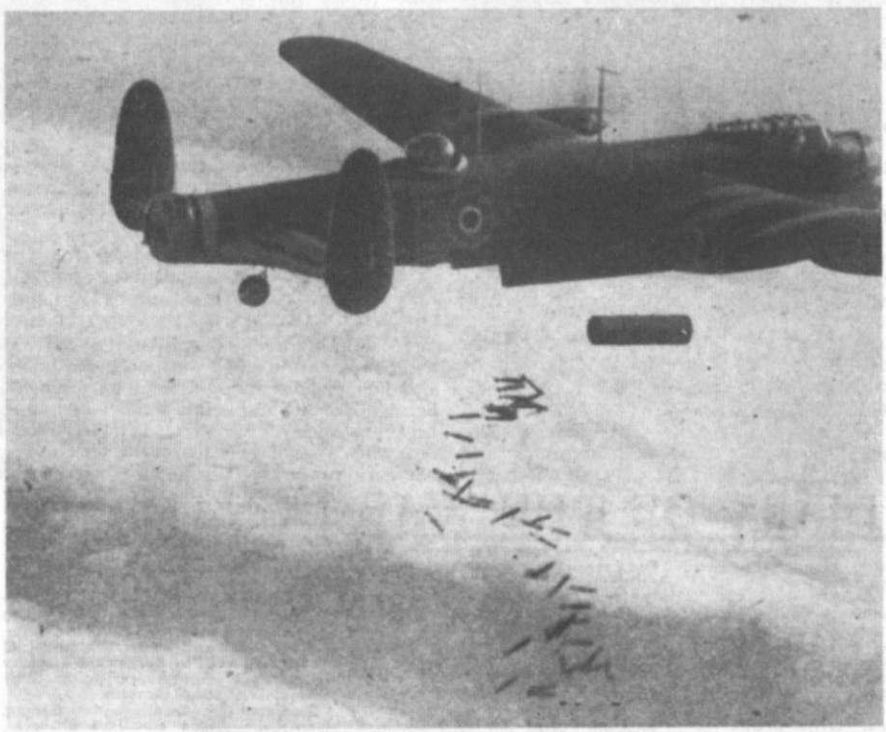
October 18. *Mr. Cordell Hull and Mr. Eden arrived in Moscow for Three Power Conference.*

THE WAR IN THE AIR

by **Capt. Norman Macmillan, M.C., A.F.C.**

AMERICAN naval aircraft flying from carriers, with Super-Fortress bombers based on China operating in strategic collaboration, carried the war in the Pacific into the Philippine Is., where United States forces landed on Leyte island on October 20, 1944. The Japanese, evidently expecting the first landing to be on Luzon or Mindanao—the two largest islands in the group—were taken by surprise.

The cause of their surprise was the heavy pre-invasion air assault against targets in Mindanao, Luzon, Formosa, and the Ryukyu islands, which concentrated on gun positions, vehicle convoys and shipping at Leyte island only in the final 48 hours. At Leyte island 80 aircraft were destroyed on the ground and four in combat.



RECORD BOMBING ATTACK ON DUISBURG, largest inland port in Europe, about 150 miles from the mouth of the Rhine, was carried out on October 15, 1944. This, the R.A.F.'s biggest single night operation, followed a similar attack the previous day, when over 1,000 Lancasters and Halifaxes dropped nearly 5,000 tons of bombs for the loss of 14 bombers. From one of the Lancasters (above) a 4,000-lb. bomb and a shower of incendiaries fall. *Photo, British Official*

The attacks against Formosa began on October 11. The Japanese reported that 1,100 U.S. aircraft, including the Super-Fortresses, were engaged. By October 16 the island had had five raids, in which the bombers smashed harbours, dockyards, industrial buildings, oil stores and shore defences. The Super-Fortresses were flying at shorter ranges than when they attacked targets in Kyushu, southernmost island of Japan proper, and so carried heavier bomb loads, the heaviest they have yet transported. In the first five days Admiral Nimitz reported over 700 enemy aircraft destroyed in the air and on the ground and 43 ships sunk. The success of the Super-Fortresses is reflected in the allocation to them of first priority in man-power and materials in the U.S.A., where five factories now make the complete aircraft, with hundreds of sub-contractors to feed them with parts.

The assault on the Philippines is the natural strategic consequence of the Japanese defeats in New Guinea, the Moluccas, and Palau islands. It conforms to a recognized tactical approach to China and Japan proper. In the air it has already had the effect of inflicting unparalleled losses on the Japanese through the dual air assault from the sea and the Asiatic mainland. From airfields in the Philippines the American and Australian air forces will be able to deal devastating blows at Japan's communications lifeline to the Netherlands East Indies, Malaya and Burma. The Japanese can be expected to fight desperately to hold on to the Philippines, but the seizure of airfields in Leyte will give the Allies the opportunity to use their air power with smashing effect against any of the islands in the group in support of surface forces; and by October 21 the airfield at Tacloban was captured.

Meanwhile, an interesting air command change was the appointment on October 15, 1944, of Air Chief Marshal Sir Trafford Leigh-Mallory to be Air Officer C.-in-C. South East Asia, vice Air Chief Marshal Sir Richard Peirse. The new Air C.-in-C., under Admiral Lord Louis Mountbatten, is primed with the latest battle experience from the invasion of France. His appointment may be the prelude to greater air and surface activity from the west against the Japanese in Burma, Malaya, the Nicobar and Andaman islands, and Sumatra.

IN Europe strategical and tactical air blows have increased in violence. On October 14 and 15, within eighteen hours, more than 10,000 tons of bombs, including 500,000 incendiaries, fell on Duisburg, greatest inland port in Europe. This blow by Bomber Command was a combined daylight and night assault programme. The first attack, made in daylight by a powerful force, dropped 4,500 tons of bombs in 25 minutes: 14 Lancasters, about one per cent of the force, were lost. At night more than 1,500 Lancaster and Halifax bombers dropped the remainder of the 10,000 tons; eight bombers were lost.

Bomber Command uses a new armour-piercing delayed-action 12,000-lb. bomb for special targets. One scored a direct hit on the battleship Tirpitz during the Lancaster attack from the Archangel base. The wrecking of the Brest submarine pens' 12-ft. reinforced concrete roof (see illus. page 327) was due to this missile. It was used to burst dykes on Walcheren (see illus. page 380). It was used against the Kembs dam across the Rhine near Mulhouse on October 7 with success. On October 15 a Lancaster squadron escorted by Mustang fighters of A.D.G.B. (now reverted to its former title of Fighter Command) attacked shortly before 10 a.m. the Sorpe dam, the third Ruhr dam not breached by Wing Commander Gibson's special force on May 16, 1943. (See pp. 24 and 25, Vol. 7.)

Direct hits with the A.P. 12,000-lb. bomb were reported during the attack, but so far there has been no report of reconnaissance aircraft confirming the breaching of this dam: which is of unusual construction, having an immense thickness of concrete. It will be interesting to learn whether the new bombs have breached it, or if this attack, like Gibson's, failed to do so. The Sorpe dam appears to be a model for structural engineers to study if it should withstand the bludgeon of the new R.A.F. "earthquake" bomb, as Air Chief Marshal Sir Arthur Harris is said to have christened it.

TWENTY-FIVE Thousand Casualties Saved by 1st Airborne Army

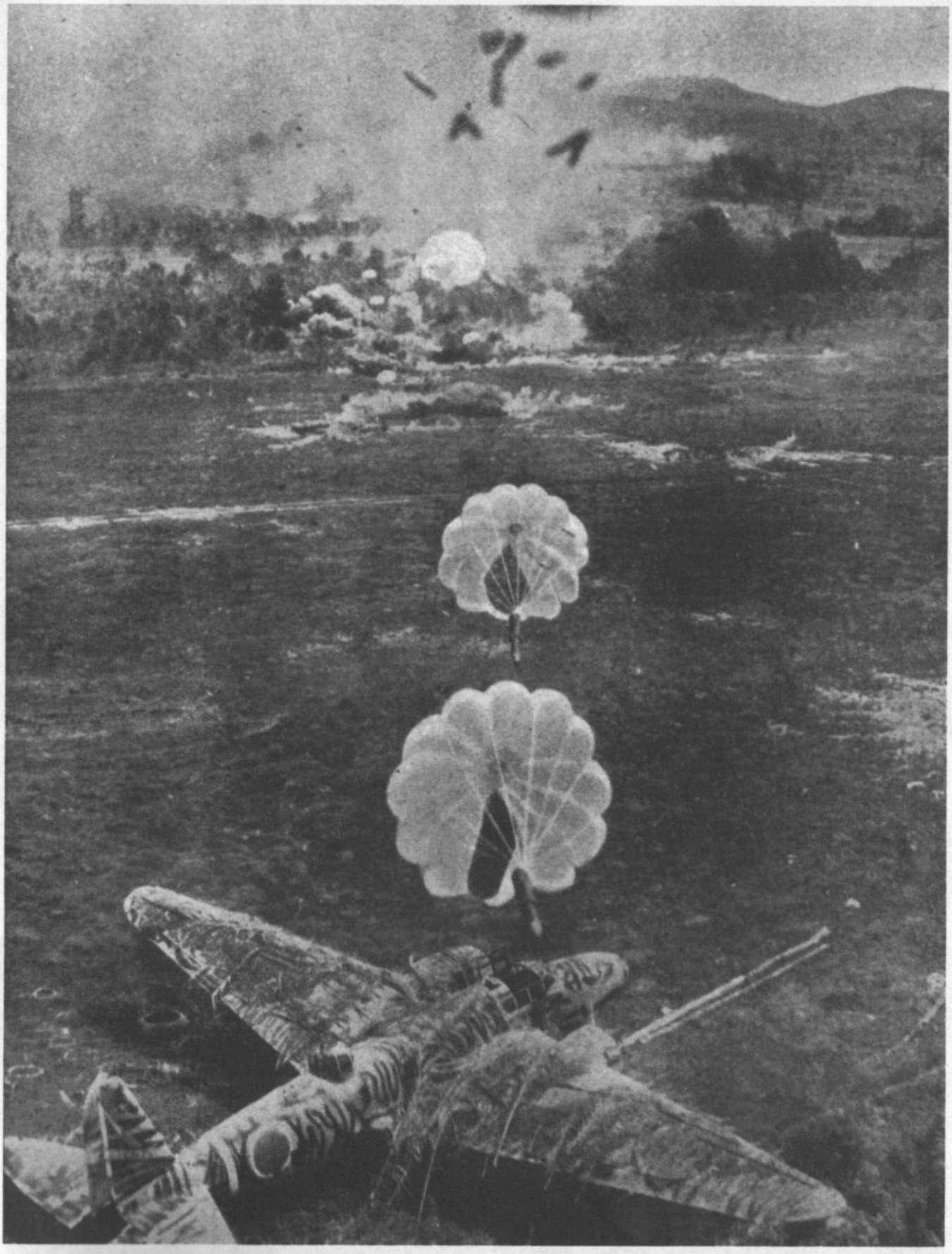
General Dempsey, commanding the forces fighting in the Nijmegen salient, conveying his thanks to the American airborne troops of the 1st Airborne Army, said that the action of that Army saved him a minimum of 25,000 casualties. The composition of the 1st Airborne Army was revealed as the 1st British Airborne Division, the 82nd and 101st U.S. Divisions and one Polish Brigade, equipped with both British and U.S. tanks. The Duke of Cornwall's Light Infantry formed the spearhead of the surface force that tried to relieve the British Division at Arnhem.

Aachen was captured on October 20, 1944, after an American infantry assault lasting eight days from the expiration of the demand to surrender (see illus. page 395). The city had been already so heavily bombed by Bomber Command that further area bombing would have been a wasteful expenditure of the man-power employed in preparations for "drenching" bombing, and tactical air forces were used in support of the final assault. These aircraft were able to pick out individual targets, such as fortified houses, that were holding up the advance, and enemy forces attempting to relieve the garrison. On October 13, German relieving tank assemblies near Wurselen were attacked by aircraft and artillery; 64 were destroyed.

Elsewhere, tactical aircraft have been engaged in disrupting enemy communications to the battlefronts. Take one example. On Sunday, October 15, the weather shut down about midday, yet R.A.F. aircraft supporting Field-Marshal Montgomery's Army Group flew 834 sorties, a relatively small offensive, which nevertheless destroyed 27 railway trucks and damaged 79, cut 15 railway tracks, and destroyed five locomotives and damaged six. Work of this kind proceeds continually, sapping the enemy's strength faster than he can rebuild it. It goes on despite the 500 m.p.h. German jet-planes that make fleeting dashes over the Allied zones. Aircraft may have to operate from strip airfields laid out on the wet gronnd; tents and caravans provide sleeping, eating and office accommodation.

On October 12, despite unsuitable weather, British airborne troops landed in gliders on the aerodrome west of Athens. They cleared landmines and made a landing strip for transport and combatant aircraft. Then by air, and from the sea through Piraeus, Allied forces came to the aid of the Greeks who had already liberated their own ancient capital.

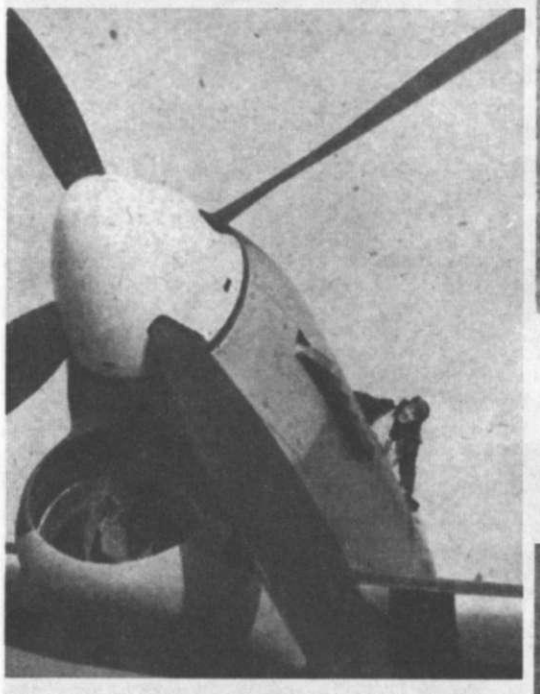
Parachute-Borne Fragmentation Bombs in Action



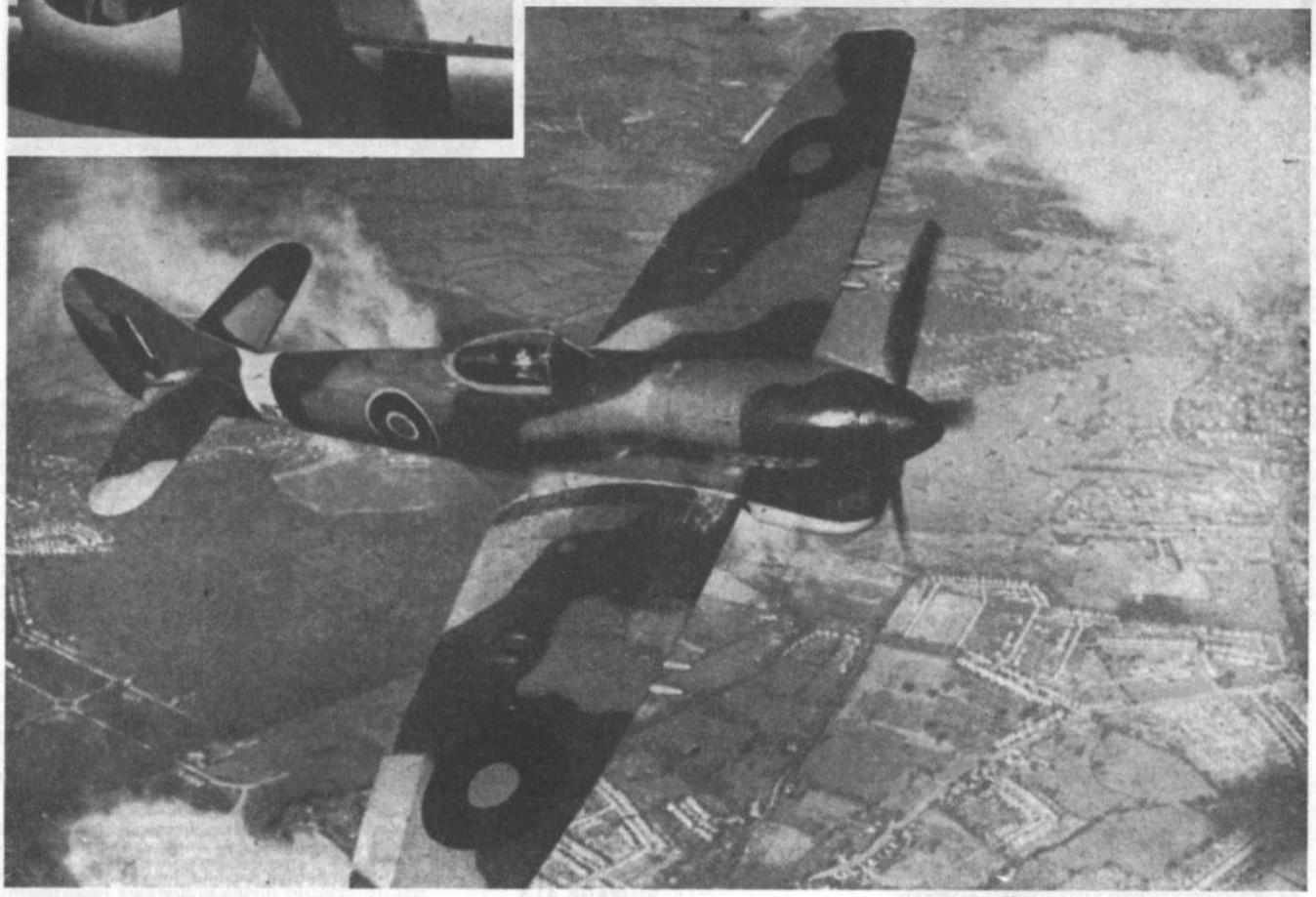
TERRIFIC DAMAGE WAS WROUGHT on Japanese airfields by U.S. Army Air Forces during a raid on Buru Island, near Celebes, in the battle for New Guinea in July 1944. A few seconds after this photograph was taken a direct hit completely shattered the grounded and camouflaged Japanese plane in the foreground. Describing these new "parafrag" bombs, General Henry H. Arnold, head of the U.S. Army Air Force, declared: "They break into 1,000-1,500 pieces, each weighing about ·3 oz. and having velocities up to 4,000 ft. per second." Their design enables low-flying bombing to be carried out with extraordinary accuracy.

Photo, New York Times Photos

This is the Tempest—Bomb-Killer Number One



TEMPESTS OF THE R.A.F. scored outstanding successes against flying bombs, earning the title of "Bomb-Killer Number 1." A wing that had destroyed some 650 doodle-bugs during the summer of 1944 was transferred to an airfield in Belgium, whence it operated against German fighters : above, pilots of a New Zealand Tempest squadron at this airfield, their planes in the background. The Tempest is a single-engined fighter in the tradition of the Hurricane and Typhoon, designed by Sydney Camm, C.B.E., of Hawker Aircraft Ltd. (see p. 543, Vol. 3). One of the fastest fighters in service today, it is powered with a super-charged Napier Sabre engine of 2,200 h.p. Armament consists of four 22-mm. cannon guns. The span is 41 ft. ; length, 33 ft. 8 in. ; height (tail down), 16 ft. 1 in. Below, a Tempest in flight ; left, the nose, showing four-bladed airscrew. *Photos, British Official*



Editor's Postscript

LET the end of the War come soon or late, if one may judge from certain straws in the wind we shall have quite a number of those lightheaded busybodies who get a self-righteous thrill from urging the victorious Allies to deal kindly with the vanquished Hun. All of us who remember what followed the last War will have little sympathy with such futile critics who, in the years between the temporary settlement of Versailles and the Germanic revival of war-lust, continued to play the game of the Junkers—those Junkers who we were warned would "cheat us yet," and did cheat us, and will cheat us again, if official opinion should now waver in disposing of them effectively. I have just had a recent reminder of the sort of criticism to which an editor is subjected who tries to be realistic concerning the inborn beastliness of the German race to all outside its pale. The occasion was my coming across a long and friendly letter from a Yorkshire reader, who wrote to me in September 1936, to say that he had many works edited by me on his bookshelves, and these he had treasured for years, but he had just come into possession of some volumes of the first series of THE WAR ILLUSTRATED which I edited throughout the last War, in which he was shocked to discover "such a lurid collection of hymns of hate against Germany, the like of which I never dreamed possible, and it is a sad blow indeed to me to find it coming from one who has produced such wonderful works for our people." As my readers of the present WAR ILLUSTRATED may be interested to know what I said to this correspondent, I am reprinting here a few extracts from my reply to him, and will only remark that if any readers of the present WAR ILLUSTRATED find it too "anti-German," I should be inclined to reply to them even more strongly than I did to my friendly critic of its predecessor.

MY letter from which these extracts are made was dated September 24, 1936: "Although even now I am by no means prepared to accept your opinion that the Germans are a kindly and peaceable people desiring nothing better than to live in peace and amity with the English, might I ask you if, in common with myself, throughout the duration of the War you were in weekly touch with the German press and read the articles of your kind-hearted German friends about the English and the French and the Belgians? You tell me that you are a frequent visitor to Germany (which I cannot pretend to be, having only once since the War made a fairly careful first-hand study of conditions there), and I would suggest that you should, in order to get a proper perspective, look over some of their wartime publications which are still to be found on the files, I have no doubt, of the Illustrierte Zeitung and the Berliner Tageblatt, etc. If you can discover in any of these publications *one* paragraph of sympathy and friendliness towards the British people written by Germans, I should be prepared to bow before the severest criticism you can launch against the contents of THE WAR ILLUSTRATED. As a matter of cold fact the anti-German tone of THE WAR ILLUSTRATED was mild and diffident by comparison with the anti-British tone of every piece of printed matter issued in Germany throughout the War . . . in any other war in which Germany should unhappily find herself fighting against Britain, the same measures of hate would be meted out . . . On re-consideration, I am not prepared to blush for anything that appeared in THE WAR ILLUSTRATED even during the abnormal days of the War. I admire the German people in many ways, having known many of them, but I am not prepared to believe that as a nation they are so kindly disposed towards the British people as, for the time being, it suits Hitler in Mein Kampf to make them appear."

I WAS greatly interested to receive from a correspondent in Italy, Corporal T. M. Burgess, a copy of THE WAR ILLUSTRATED, dated February 16, 1918, which had been handed to him by an Italian civilian when he was passing through a town "somewhere in Italy." This particular issue of THE WAR ILLUSTRATED has been very carefully preserved for no less than twenty-six years, a fact which, Corporal Burgess remarks, "shook me!" According to my correspondent, it went the rounds of all his companions in arms, who were amazed at its age "and the slightly different goings-on it recorded compared with what we are experiencing here today." But what most interested me, as its editor, was the fact that my correspondent had just received, in the midst of all the confusion of the War in Italy, a recent number of its present-day successor! I could write a whole page about the contents of that copy of February 16, 1918 (it was No. 183, by the way), but can find space here to quote only a few lines from a page-article which I had personally written on a book by General von Freytag-Loringhoven, entitled "Deductions from the World War," wherein that now-forgotten military critic had written, "In the future, as in the past, the German people will have to seek firm cohesion in its glorious Army and in its belaurelled young Fleet."

MY own concluding remarks upon this menacing book, which all Germany was reading at a time when its present Fuehrer was himself an unknown corporal in that "glorious Army" which was, eight months later, to be forced to surrender, are worth reprinting today:

"If anyone tells you that German militarism is showing signs of exhaustion, you will do that person a service by asking him to read this frank study of the World War by Germany's foremost military writer who, liar though he be when it suits him to lie, does not hesitate to tell the military truths in which he has been trained, and which he is bent on teaching Germany of today for its wars of the future."

Surely the Allies will see to it this time that when we have disposed of this "glorious Army" for a second time in twenty-six years it will be rendered impotent to renew its evil powers within another quarter of a century. I say "surely," but at the moment I am not too sure! And that letter from a friendly critic in 1936 is far from reassuring.

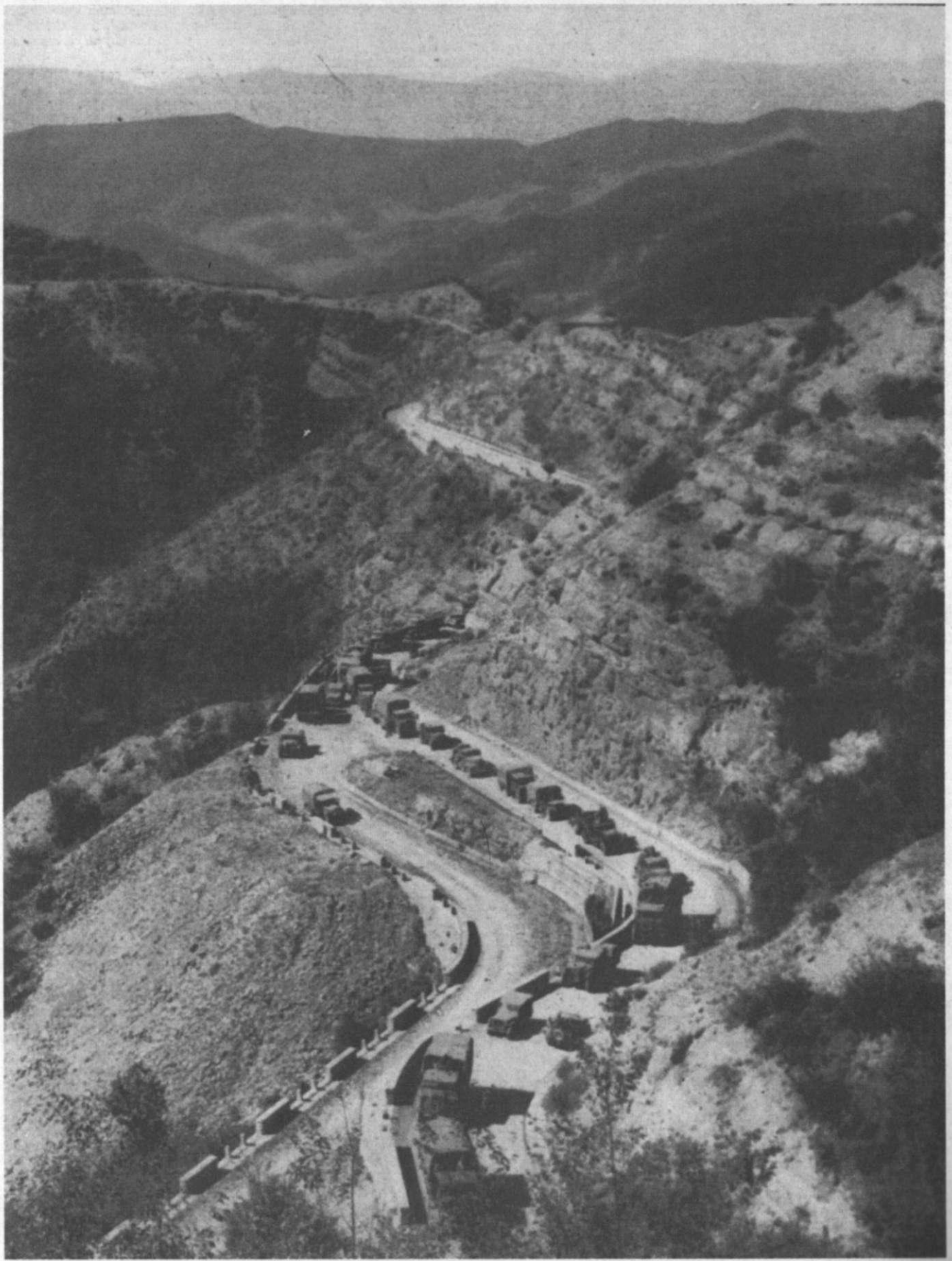
Lieut.-General R. M. SCOBIE, M.C., whose appointment as Commander of the Land Task Force in Greece was announced on October 15, 1944, was formerly G.O.C. Malta. He was an instructor at the Royal Military College, Australia, 1932-35, and in 1939 became Deputy-Director for Mobilization. He commanded Tobruk fortress in 1941. *Photo, British Official*

HOW wasteful war can be is illustrated by the final reckoning of the number of shells fired by the Germans from their long-range Channel guns on the French coast from the time when they began in 1940 to September 1944 when they were captured. The total weight of shells dropped into Dover and Folkestone and other places nearby was 3,700 tons. Of course, they did a lot of damage, but they did not increase the Huns' chance of winning by one ounce. They did not keep convoys out of the Narrows. Our merchant ships went up and down all the time. So far as the result of the war is concerned they had no effect whatever. Those 3,700 tons of shells were utterly wasted.

WHILE the problem of tips to waiters is under discussion, some people holding that you could not obtain good service without them and others advocating the addition of a percentage for service to every bill, another difficulty of the same nature is worrying many shopkeepers. Numbers of customers, it seems, are so anxious to get a little bit extra of this or the other that they offer tips to shop assistants. This is a low-down trick in every way. It is an attempt to get the better of other customers by underhand means and it is putting temptation in the way of the shop assistant which, if he yields to it, makes him liable to be dismissed on the spot. For in the event of a tip being taken and the fact coming to the knowledge of the police, the assistant and the customer would both be liable to prosecution under the Prevention of Corruption Act. That many shopkeepers do themselves favour certain customers cannot be doubted. Their method of keeping goods under the counter and producing them only when certain favoured persons enter the shop is sufficient proof. If a shopkeeper is bound to sell what customers ask for, supposing he has it, then it must be an offence against the law to refuse. Yet there is much to be said for the shopkeeper who reserves goods for regular customers rather than those who drift about picking up what they can.

I WONDER how many listeners to the B.B.C. "war report" like the confused noise of the direct broadcasts from the Front? When you hear the distinct but lively tones of Major Lewis Hastings giving his informative commentary on the latest events, do you not find it a relief from the untrained voices of the war reporters and all the whistlings, growlings and rumblings that come across with them? I feel grateful every time the announcer says "We are reading this report." But I suppose there are people who like to feel they are hearing what comes straight from the battlefield. With the matter that we have been given there is no fault whatever to be found. The men who collect it are all good at their job. It is not their business to cultivate smooth radio voices, and they cannot prevent the hubbub that accompanies their stories. To hear the actual words spoken by General Eisenhower or Field-Marshal Montgomery is something none of us would like to miss. They come over quite well, too. But there has been too much "actuality" for me in the war reports generally. It too frequently defeats its own object.

Climbing a Mountain Pass to Victory in Italy



THE MURAGLIONE PASS, 24 miles north-east of Florence and on the highway to Bologna, within eight miles of which city the 5th Army was reported to be engaged in bitter fighting on October 24, 1944, proved hard going for our transport. Stretches of this road running alongside the mountains had been demolished by the enemy, and British engineers have had a tough task putting the zigzag thoroughfare in order for the close-packed streams of traffic moving up to the front. *Photo, British Official*

Printed in England and published every alternate Friday by the Proprietors, THE AMALGAMATED PRESS, LTD., The Fleetway House, Farringdon Street, London, E.C.4. Registered for transmission by Canadian Magazine Post. Sole Agents for Australia and New Zealand: Messrs. Gordon & Gotch, Ltd.; and for South Africa: Central News Agency, Ltd.—November 19, 1944. S.S. *Editorial Address:* JOHN CARPENTER HOUSE, WHITEFRIARS, LONDON, E.C.4.